## CLAIMS

WE CLAIM

1. A method comprising reacting

a) at least one diacidic monomer, comprising about 1 to 100 mole % of at least one light-absorbing monomer having a light absorption maximum between about 300 nm and about 1200 nm and 99-0 mole % of a non-light absorbing monomer which does not absorb significant light at wavelengths above 300 nm or has a light absorption maximum below 300 nm, with

b) an organic compound having the formula

$$X\text{-}B\text{-}X_1$$

wherein B is a divalent organic radical selected from the group consisting of $C_2$-$C_{12}$ alkylene, $C_3$-$C_8$ cycloalkylene, $C_1$-$C_4$ alkylene- $C_3$- $C_8$-cycloalkylene- $C_1$-$C_4$ alkylene, $C_1$-$C_4$ alkylene-arylene- $C_1$-$C_4$ alkylene, $C_2$- $C_4$-alkylene-L-arylene-L- $C_2$-$C_4$ alkylene and $C_2$-$C_4$ alkylene-(L- $C_2$-$C_4$ alkylene)$_{1-4}$, wherein L is a linking group selected from the group consisting of -O-, -S-, -$SO_2$-, -NH-, -N($C_1$-$C_6$ alkyl)-, -N(aryl)-, -N($SO_2$ $C_1$-$C_6$ alkyl)-, -N($SO_2$aryl)-, -$SO_2$N($C_1$-$C_6$ alkyl)- and combinations thereof; X and $X_1$ are reactive groups and are independently selected from the group consisting of bromine, iodine and R-$SO_2$O; wherein R is selected from the group consisting of $C_1$-$C_6$ alkyl; $C_1$-$C_6$ alkyl substituted with chlorine, fluorine, $C_1$-$C_6$ alkoxy, aryl, aryloxy, arylthio or $C_3$-$C_8$ cycloalkyl; $C_3$-$C_8$ cycloalkyl or aryl,

wherein said reaction is carried out in a solvent in the presence of a base to form a light absorbing polymeric composition having the formula

$$\left[\text{A-B}\right]_n$$

wherein B is as defined above, n is at least 2 and A comprises the residue of said diacidic monomer.

2. The process of claim 1 where said light-absorbing monomers have the formula

H-Y-H

wherein H represents an acidic hydrogen atom; Y is a divalent light-absorbing moiety selected from the group consisting of chromophoric classes of azo, disazo, triazo, bis-azo, methine, arylidene, polymethine, azo-methine, azamethine, anthraquinone, anthrapyridone (3H-dibenz[f,ij]isoquinoline-2,7-dione, nitroarylamines anthrapyridine (7H-dibenz[f,ij]isoquinoline-7-one, phthaloylphenothiazine (14H-naphth[2,3-a]phenothiazine-8,13-dione, benzanthrone (7H(de)anthracene-7-one), anthrapyrimidine (7H-benzo[e]perimidine-7-one), anthrapyrazole, anthraisothiazole, triphenodioxazine, thiaxanthene-9-one, fluorindine (5,12-dihydroquinoxaline [2,3-b]phenazine, quinophthalone, phthalocyanine, metal phthalocyanine, naphthalocyanine, metal naphthalocyanine, nickel dithiolenes, squarylium compounds, croconium compounds, coumarin (2H-1-benzopyran-2-one), coumarin imine (2H-1-benzopyran-2-imine), perinone, benzodifuran, phthaloylacridone, phthaloylphenoxazine (14H-naphtho[2,3-a]phenoxazine-8,13-done, phthaloylacridone (13H-naphtho[2,3-c] acridine-5,8,14-trione), anthraquinonethioxanthane (8H-naphtho[2,3-c]thioxanthene-5,8,13-trione, anthrapyridazone, pyrrolo[3,4-c]pyrrole, indigo, thioindigo, quinoline, xanthene, acridine, azine, cyanine, oxazine, 1,4 and 1,5-naphthoquinones, 2,5-

diarylaminoterephthalic acids and esters, pyromellitic acid dimide, naphthalene-1,4,5,8-tetracarboxylic acid diimide, 3,4,9,10-perylenetetracarboxylic acid diimide, 3-aryl-2,5-dioxypyrroline, 3-aryl-5-dicyanomethylene-2-oxopyrroline, arylisoindoline, hydroxybenzophenone, benoztriazole, naphthotriazole, diminoisoindoline, naphthopyran (3H-naphtho[2,1-6]pyran-3-one and 3-imine, phthalimides, 2-arylbenzazoles, carbostyryls, 1,2-diarylethenes, 2,5-diarylthiophenes, 2,5-diaryl-1,3,4-oxadiazoles, triazines, 2,5-diarylfurans, 2,5-diaryl-1,3,4-thiadiazoles, thiophenes, 1,3-diphenyl-2-pyrazolines, 2-arylbenzofurans, 2,6-diphenylbenzofurans, quinolines, quinoxalines, 3,4-diarylfuanones, distyrylarenes, benzanthrones, polyarenes and naphthalimides.

3. The method of claim 2 wherein the hydrogen atoms of said formula H-Y-H are independently bonded to an oxygen, sulfur, or nitrogen atom which is a part of the light absorbing moiety Y and which in combination provides two acidic functional groups.

4. The method of claim 3 wherein said acidic functional groups have pKa values of from about 1.5 to about 12.

5. The method of claim 3 wherein said acidic functional groups are independently selected from the group consising of $-CO_2H$, -SH, -OH attached to an aromatic ring, -CONHCO-, $-SO_2-NH-CO-$, $-SO_2-NH-SO_2-$, 1(H)-1,2,4-triazol-3-yl-, imidazolyl, benzimidazolyl, pyrazolyl, $-SO_2H$ attached to aromatic ring, $-NHSO_2R_5$ and $-SO_2NHR_5$, wherein $R_5$ is selected from the group consisting of $C_1$-$C_6$ alkyl, $C_3$-$C_8$ cycloalkyl, aryl and $C_1$-$C_6$ alkyl substituted with at least one group selected from the group consisting of $C_1$-$C_6$ alkoxy, aryl, aryloxy, arylthio and $C_3$-$C_8$ cycloalkyl.

6. The method of claim 1 wherein said non light-absorbing monomers have the formula

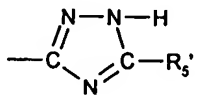
$H-Y_1-H$

wherein H represents an acidic hydrogen atom; $Y_1$ is a divalent moiety selected from the group consisting of-$O_2C-R_1-CO_2$- and-O-$R_2$-O- and-$O_2C-R_3$-O-, wherein $R_1$ is selected from the group consisting of $C_2$-$C_{12}$ alkylene, 1-4-cyclohexylene, arylene, arylene-O-arylene, arylene-$SO_2$-arylene, arylene-S-arylene, and $C_1$-$C_4$ alkylene-O- $C_1$-$C_4$ alkylene; wherein $R_2$ is selected from the group consisting of arylene, arylene-O-arylene, arylene-S-arylene, arylene-$SO_2$-arylene, phenylene-phenylene, and phenylene-$C(R_4)_2$-phenylene; wherein $R_4$ is selected from the group consisting of hydrogen and $C_1$-$C_4$ alkyl; wherein $R_3$ is selected from arylene.

7. The method of claim 1 wherein said polymeric composition is linear.

8. The method of claim 1 wherein said diacidic monomers have $pK_a$ values of about 12 or below.

9. The method of claim 2 wherein H-Y-H includes a moiety selected from the group consisting of carboxy groups attached to an aromatic ring carbon or aliphatic carbon, hydroxy groups attached to an unsubstituted or substituted phenyl or naphthyl radical, -CO-NHCO- groups attached to an aromatic ring to provide an imide and 1(H)-1,2,4-triazol-3-yl group having the formula



wherein $R_5'$ is selected from the group consisting of hydrogen, $C_1$-$C_6$ alkyl and aryl.

10. The method of claim 1 where n is between about 2 and about 25.

11. The method of claim 1 wherein n is between about 3 and about 15.

12. The method of claim 1 wherein said base is selected from the group consising of alkali metal carbonates, alkali metal bicarbonates and tertiary amines, aromatic nitrogen bases, bicyclic nitrogen containing bases having non-hindered electron pairs and mixtures thereof.

13. The method of claim 12 wherein said base is selected from the group consisting of triethylamine, tri-n-butylamine, N-methylpiperidine, N,N'-dimethylpiperazine, N-methylmorpholine and N,N,N',N'-tetramethylethylenediamine, pyridines, picolines, quinolines, isoquinolines, N-alkylpyrroles, N-alkylimidazoles, 1,8-diazabicyclo[5,4,0]undec-7-ene (DBU), 1,5-diazabicylco[4,3,0]non-5-ene (DBN) and 1,4-diazadicyclo[2,2,2]octane (DABCO®) and mixtures thereof.

14. The method of claim 1 wherein said solvent is one or more aprotic polar solvents.

15. The method of claim 1 wherein said solvent is selected from the group consisting of N,N-dimethylacetamide, N,N-dimethylformamide, N-methyl-2-pyrrolidone, N-methyl-N-phenyl formamide, dimethylsulfoxide, aliphatic nitriles, sulfolane, hexamethyl phosphoramide, water, alcohols, ketones pyridine and ether-alcohols and mixtures thereof.

16. The method of claim 15 wherein said solvent is selected from the group consisting of N,N-dimethylacetamide, N,N-dimethylformamide, N-methyl-2-pyrrolidone, N-methyl-N-phenyl formamide, dimethylsulfoxide, aliphatic nitriles, sulfolane and hexamethyl phosphoramide and mixtures thereof.

17. The method of claim 1 wherein said reacting is conducted at a temperature between about 75°C and about 125°C.

18. The method of claim 1 wherein said organic compound having the formula

$$X\text{-}B\text{-}X_1$$

is selected from the group consisting of disulfonate compounds where X and $X_1$ are both a sulfonate ester of the formula-$OSO_2R$, wherein R is selected from $C_1$-$C_4$ alkyl, phenyl or p-methylphenyl and wherein B is selected from $C_2$-$C_6$ alkylene, -$CH_2$-1,4-cyclohexylene-$CH_2$-, -$CH_2CH_2$($OCH_2CH_2)_{1-4}$ and-$CH_2CH_2O$-1,4-phenylene-O-$CH_2CH_2$-.

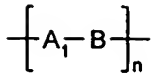
19. The method of claim 18 wherein said B moiety of organic compound of Formula II is selected from the group consisting of-$CH_2CH_2$-, -$CH_2CH(CH_3)CH_2$-, -$CH_2C(CH_3)_2CH_2$-, -$(CH_2)_4$-, -$(CH_2)_6$-, -$CH_2CH_2OCH_2CH_2$- and-$CH_2$-1,4-cyclohexylene-$CH_2$-.

20. The method of claim 1 wherein said organic compound having the formula $X\text{-}B\text{-}X_1$ is selected from the group consisting of 1,2-ethandiol, dimethanesulfonate; 1,2-ethanediol bis(4-methylbenzenesulfonate); 1,4 butanediol, dimethane sulfonate; 1,6-hexanediol, dimethanesulfonate; 1,3-propanediol,2,2-dimethyl-, dimethanesulfonate; 1,4-cyclohexanedimethanol, dimethanesulfonate; 1,1,3,3-tetramethylcyclobutanediol, dimethanesulfonate, and ethanol 2,2'-oxybis-dimethanesulfonate.

21. The method of claim 1 wherein A of said light absorbing polymeric composition comprises 100 mole% of said light-absorbing monomer.

22. The method of claim 1 wherein said diacidic light absorbing monomer has a light absorption maximum between about 300 nm and about 1200 nm and is present in said light absorbing polymeric composition in an amount at least about 50% by weight %.

23. A light absorbing composition having the formula



wherein $A_1$ comprises the residue of at least one diacidic monomer having a light absorption maximum between about 300 nm and about 1200 nm, and wherein B is a divalent organic radical selected from the group consisting of $C_2$-$C_{12}$ alkylene, $C_3$-$C_8$ cycloalkylene, $C_1$-$C_4$ alkylene- $C_3$-$C_8$-cycloalkylene- $C_1$-$C_4$ alkylene, $C_1$-$C_4$ alkylene-arylene-$C_1$-$C_4$ alkylene, and $C_2$- $C_4$-alkylene-L-arylene-L- $C_2$-$C_4$ alkylene and $C_2$-$C_4$ alkylene-(L- $C_2$-$C_4$ alkylene)$_{1-4}$, wherein L is a linking group selected from-O-, -S-, -$SO_2$-, -NH-, -N($C_1$-$C_6$ alkyl)-, -N(aryl)-, -N($SO_2$ $C_1$-$C_6$ alkyl)-, -N($SO_2$aryl)-, -$SO_2$N($C_1$-$C_6$ alkyl)- and combinations thereof; wherein n is at least 2.

24. A composition comprising a thermoplastic polymer blended with at least one light absorbing linear polymeric composition of claim 23.

25. The composition of claim 24 wherein said thermoplastic polymer is selected from the group consisting of polyesters, polyolefins, polyamides, polyimides, polyvinyl chloride, polyurethanes, polycarbonates, cellulose esters, polyacrylates, polyvinylesters, polyester-amides, polystyrene, polyacrylonitrile-butadiene- styrene, polystyrene-acrylonitrile and mixtures and blends thereof.

26. The composition of claim 23 wherein $A_1$ comprises the residue of at least one diacidic monomer having the structure

H-Y-H

wherein H represents an acidic hydrogen atom and Y is a divalent light-absorbing moiety selected from the chromophoric classes consisting of azo, disazo, triazo, bis-azo, methine, arylidene, polymethine, azo-methine, azamethine, anthraquinone, anthrapyridone (3H-dibenz[f,ij] isoquinoline-2,7-dione, nitroarylamines anthrapyridine

(7H-dibenz[f,ij]isoquinoline-7-one, phthaloylphenothiazine (14H-naphth[2,3-a]phenothiazine-8,13-dione, benzanthrone (7H(de)anthracene-7-one), anthrapyrimidine (7H-benzo[e]perimidine-7-one), anthrapyrazole, anthraisothiazole, triphenodioxazine, thiaxanthene-9-one, fluorindine (5,12-dihydroquinoxaline [2,3-b]phenazine, quinophthalone, phthalocyanine, metal phthalocyanine, naphthalocyanine, metal naphthalocyanine, nickel dithiolenes, squarylium compounds, croconium compounds, coumarin (2H-1-benzopyran-2-one), coumarin imine (2H-1-benzopyran-2-imine), perinone, benzodifuran, phthaloylacridone, phthaloylphenoxazine (14H-naphtho[2,3-a]phenoxazine-8,13-done, phthaloylacridone (13H-naphtho[2,3-c] acridine-5,8,14-trione), anthraquinonethioxanthane (8H-naphtho[2,3-c]thioxanthene-5,8,13-trione, anthrapyridazone, pyrrolo[3,4-c]pyrrole, indigo, thioindigo, quinoline, xanthene, acridine, azine, cyanines, oxazine, 1,4 and 1,5-naphthoquinones, 2,5-diarylaminoterephthalic acids and esters, pyromellitic acid dimide, naphthalene-1,4,5,8-tetracarboxylic acid diimide, 3,4,9,10-perylenetetracarboxylic acid diimide, 3-aryl-2,5-dioxypyrroline, 3-aryl-5-dicyanomethylene-2-oxopyrroline, arylisoindoline, hydroxybenzophenone, benoztriazole, naphthotriazole, diminoisoindoline, naphthopyran (3H-naphtho[2,1-6]pyran-3-one and 3-imine, phthalimides, 2-arylbenzazoles, carbostyryls, 1,2-diarylethenes, 2,5-diarylthiophenes, 2,5-diaryl-1,3,4-oxadiazoles, triazines, 2,5-diarylfurans, 2,5-diaryl-1,3,4-thiadiazoles, thiophenes, 1,3-diphenyl-2-pyrazolines, 2-arylbenzofurans, 2,6-diphenylbenzofurans, quinolines, quinoxalines, 3,4-diarylfuanones, distyrylarenes, benzanthrones, polyarenes and naphthalimides.

27. The light absorbing linear polymeric composition of claim 23 or 26

wherein $A_1$ further comprises less than about 50% by weight of the total composition of a residue of at least one non-light absorbing monomer having the formula

$$H\text{-}Y_1\text{-}H$$

wherein $Y_1$ is a divalent moiety, selected from the group consisting of-$O_2C$-$R_1$-$CO_2$- and-O-$R_2$-O- and-$O_2C$-$R_3$-O-, wherein $R_1$ is selected from the group consisting of $C_2$-$C_{12}$ alkylene, 1-4-cyclohexylene, arylene, arylene-O-arylene, arylene-$SO_2$-arylene, arylene-S-arylene, and $C_1$-$C_4$ alkylene-O- $C_1$-$C_4$ alkylene; wherein $R_2$ is selected from the group consisting of arylene, arylene-O-arylene, arylene-S-arylene, arylene-$SO_2$-arylene, phenylene-phenylene, and phenylene-$C(R_4)_2$-phenylene; wherein $R_4$ is selected from the group consisting of hydrogen and $C_1$-$C_4$ alkyl; wherein $R_3$ is arylene; wherein B is is a divalent organic radical selected from the group consisting of $C_2$-$C_{12}$ alkylene, $C_3$-$C_8$ cycloalkylene, $C_1$-$C_4$ alkylene-$C_3$-$C_8$-cycloalkylene-$C_1$-$C_4$ alkylene, $C_1$-$C_4$ alkylene-arylene-$C_1$-$C_4$ alkylene, and $C_2$-$C_4$-alkylene-L-arylene-L-$C_2$-$C_4$ alkylene and $C_2$-$C_4$ alkylene-(L-$C_2$-$C_4$ alkylene)$_{1-4}$, wherein L is a linking group selected from-O-, -S-, -$SO_2$-, -NH-, -N($C_1$-$C_6$ alkyl)-, -N(aryl)-, -N($SO_2$ $C_1$-$C_6$ alkyl)-, -N($SO_2$aryl)-, -$SO_2$N($C_1$-$C_6$ alkyl)- and combinations thereof; wherein n is at least 2.

28. The light absorbing linear polymeric composition of Claim 25 wherein $A_1$ comprises the residue of at least one diacidic monomer having at least one acidic group other than carboxy and having a light absorption maximum between about 300 nm and about 1200 nm and wherein B is a divalent organic radical selected from $C_2$-$C_{12}$ alkylene, $C_3$-$C_8$ cycloalkylene, $C_1$-$C_4$ alkylene- $C_3$-$C_8$-cycloalkylene- $C_1$-$C_4$ alkylene, $C_1$-$C_4$ alkylene-arylene-$C_1$-$C_4$ alkylene, and $C_2$- $C_4$-alkylene-L-arylene-L- $C_2$-$C_4$ alkylene and $C_2$-$C_4$ alkylene-(L-$C_2$-$C_4$ alkylene)$_{1-4}$, wherein L is a linking group selected from-O-, -S-, -$SO_2$-, -NH-, -N($C_1$-$C_6$ alkyl)-, -N(aryl-, -N($SO_2$ $C_1$-$C_6$ alkyl)-,

-($SO_2$aryl)-, -$SO_2N(C_1-C_6$ alkyl)- and combinations thereof; wherein n is at least 2.

29. The process of claim 2 wherein said light absorbing monomer comprises two carboxy groups as acidic functional groups.

30. The process of claim 2 wherein said light absorbing monomer comprises two 1(H)-1,2,4-triazol-3-ylthio groups as acidic functional groups.

31. The process of claim 2 wherein said light absorbing monomer comprises one carboxy and one 1(H)-1,2,4-triazol-3-ylthio group as acidic functional groups.

32. The process of claim 2 wherein said light absorbing monomer comprises two hydroxy groups attached to aromatic ring(s).

33. The process of claim 2 wherein said light absorbing monomer comprises one imide group and one carboxy group.

34. The process of claim 2 wherein said light absorbing monomer comprises one imide group and one 1(H)-1,2,4-triazol-3-ylthio group.

35. The composition of claim 25 wherein said light absorbing monomer comprises two carboxy groups as acidic functional groups.

36. The composition of claim 25 wherein said light absorbing monomer comprises two 1(H)-1,2,4-triazol-3-ylthio groups as acidic functional groups.

37. The composition of claim 25 wherein said light absorbing monomer comprises one carboxy and one 1(H)-1,2,4-triazol-3-ylthio group as acidic functional groups.

38. The composition of claim 25 wherein said light absorbing monomer comprises two hydroxy groups attached to aromatic ring(s).

39. The composition of claim 25 wherein said light absorbing monomer comprises one imide group and one carboxy group.

40. The composition of claim 23 wherein said light absorbing monomer comprises one imide group and one 1(H)-1,2,4-triazol-3-ylthio group.

41. The composition of claim 23 wherein said light absorbing monomer comprises a diacidic sulfamoyl ($-SO_2NH_2$) group.

42. The composition of claim 25 wherein said light absorbing monomer comprises two acidic groups independently selected from the group consisting of $-CO_2H$, SH, hydroxy attached to an aromatic ring, -CONHCO-(imide), $-SO_2NHCO-$, $-SO_2NHSO_2-$, 1(H)-1,2,4-triazolyl-3-yl-, imidazolyl, benzimidazolyl, pyrazolyl, $-SO_2H$ attached to an aromatic ring, $-NHSO_2R_5$ and $-SO_2NHR_5$, wherein $R_5$ is selected from the group consisting of $C_1$-$C_6$ alkyl; $C_1$-$C_6$ alkyl substituted with at least one group selected from $C_1$-$C_6$ alkoxy, aryl, aryloxy, arylthio and $C_3$-$C_8$ cycloalkyl; $C_3$-$C_8$ cycloalkyl; aryl.

43. The composition of claim 27 wherein said light absorbing monomer comprises two carboxy groups as acidic functional groups.

44. The composition of claim 27 wherein said light absorbing monomer comprises two 1(H)-1,2,4-triazol-3-ylthio groups as acidic functional groups.

45. The composition of claim 27 wherein said light absorbing monomer comprises one carboxy and one 1(H)-1,2,4-triazol-3-ylthio group as acidic functional groups.

46. The composition of claim 27 wherein said light absorbing monomer comprises two hydroxy groups attached to aromatic ring(s).

47. The composition of claim 27 wherein said light absorbing monomer comprises one imide group and one carboxy group.

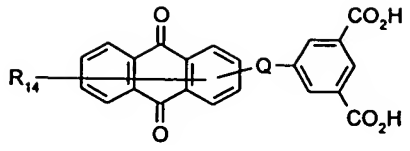
48. The composition of claim 27 wherein said light absorbing monomer comprises one imide group and one 1(H)-1,2,4-triazol-3-ylthio group.

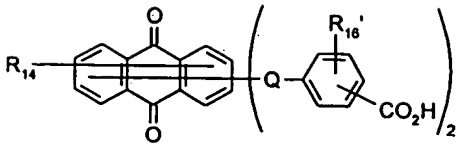
49. The composition of claim 27 wherein said light absorbing monomer comprises a diacidic sulfamoyl ($-SO_2NH_2$) group.

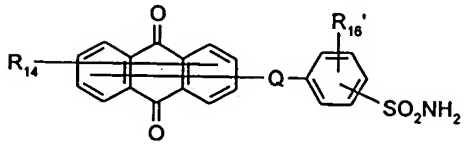
50. The composition of claim 27 wherein said light absorbing monomer comprises two acidic groups independently selected from-$CO_2H$, SH, hydroxy attached to an aromatic ring, -CONHCO- (imide), $-SO_2NHCO-$, $-SO_2NHSO_2-$, 1(H)-1,2,4-triazolyl-3-yl-, imidazolyl, benzimidazolyl, pyrazolyl, $-SO_2H$ attached to an aromatic ring, $-NHSO_2R_5$ and-$SO_2NHR_5$, wherein $R_5$ is selected from $C_1$-$C_6$ alkyl; $C_1$-$C_6$ alkyl substituted with at least one group selected from $C_1$-$C_6$ alkoxy, aryl, aryloxy, arylthio and $C_3$-$C_8$ cycloalkyl; $C_3$-$C_8$ cycloalkyl; aryl.

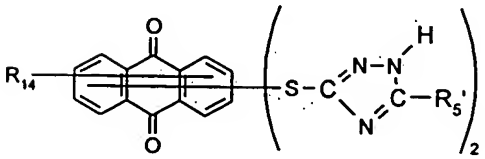
51. The light absorbing linear polymeric composition of claim 27 wherein said at least one diacidic monomer comprises at least about 50% by weight of the total composition.

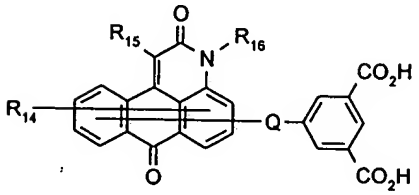
52. The composition of claim 51 wherein the light absorbing portion of A comprises the residue of at least one diacidic light absorbing monomer selected from the group consisting of the anthraquinone and anthrapyridone colorants having the structures:

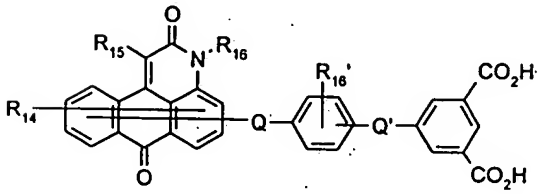


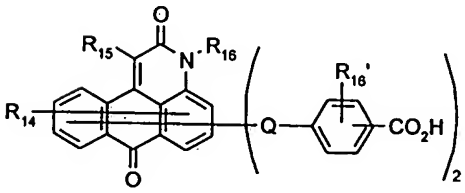


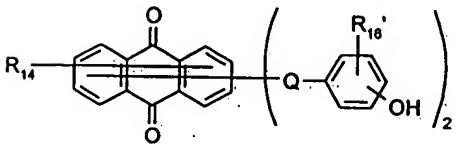


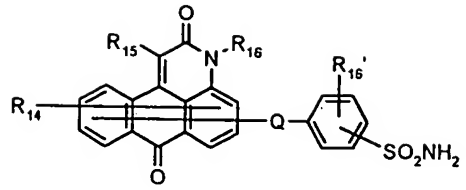


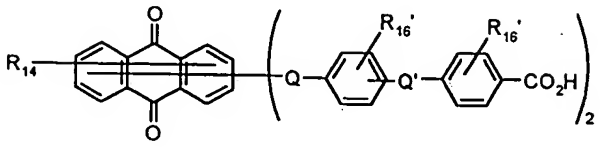


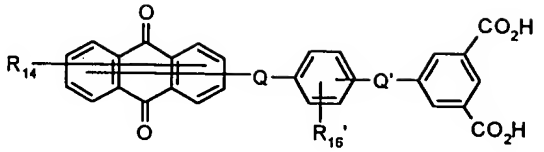


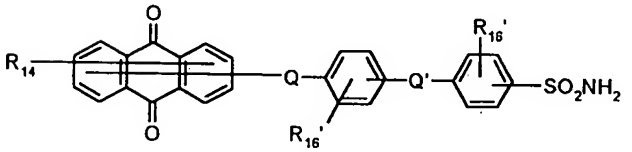


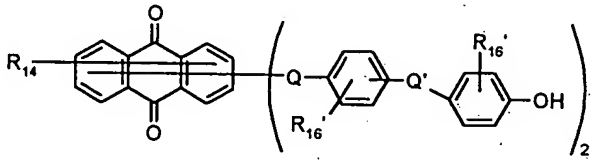




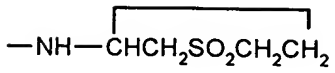








wherein $R_{14}$ is selected from the group consisting of hydrogen and 1-4 groups selected from amino, $C_1$-$C_{10}$ alkylamino, $C_3$-$C_8$ alkenylamino, $C_3$-$C_8$ alkynylamino, $C_3$-$C_8$ cycloalkylamino, arylamino, halogen, $C_1$-$C_6$ alkoxy, $C_1$-$C_6$ alkylthio, aryl, aroyl, $C_1$-$C_6$ alkanoyl, $C_1$-$C_6$ alkanoyloxy, NHCO $C_1$-$C_6$ alkyl, NHCOaryl, $NHCO_2$ $C_1$-$C_6$ alkyl, $NHSO_2$ $C_1$-$C_6$ alkyl, $NHSO_2$ aryl, $C_1$-$C_6$ alkoxycarbonyl, aryloxy, arylthio, heteroarylthio, cyano, nitro, trifluoromethyl, thiocyano, $SO_2$ $C_1$-$C_6$ alkyl, $SO_2$ aryl, $-SO_2NH$ $C_1$-$C_6$ alkyl, $-SO_2N(C_1$-$C_6$ alkyl)$_2$, $-SO_2N(C_1$-$C_6$ alkyl) aryl, CONH $C_1$-$C_6$ alkyl, CON($C_1$-$C_6$ alkyl)$_2$, CON($C_1$-$C_6$ alkyl) aryl, $C_1$-$C_6$ alkyl, furfurylamino, tetrahydrofurfurylamino, 4-(hydroxymethyl) cyclohexanemethylamino,



or hydroxy; Q and Q' are independently selected from the group consisting of-O-, $-N(COR_{10})-$, $-N(SO_2R_{10})-$, $-N(R_{10})-$, -S-, $-SO_2-$, $-CO_2-$, $-CON(R_{10})-$, $SO_2N(R_{10})-$, wherein $R_{10}$ is selected from the group consisting of hydrogen, aryl, $C_3-C_8$ cycloalkyl, or $C_1-C_{10}$ alkyl; $R_{15}$ is selected from the group consisting of hydrogen, cyano, $C_1-C_6$ alkylamino, $C_1-C_6$ alkoxy, halogen, arylthio, aryl, heteroaryl, heteroarylthio, $C_1-C_6$ alkoxycarbonyl, aroyl or arylsulfonyl; $R_{16}$ is selected from the group consisting of hydrogen, $C_1-C_6$ alkyl, $C_3-C_8$ cycloalkyl and aryl; $R_{16}'$ is selected from the group consisting of hydrogen, $C_1-C_6$ alkyl, halogen and $C_1-C_6$ alkoxy; wherein each $C_1-C_6$ alkyl group and $C_1-C_6$ alkyl group which is a portion of another group may contain at least one substituent selected from the group consisting of hydroxy, cyano, chlorine, fluorine, $C_1-C_6$ alkoxy, $C_3-C_8$ cycloalkoxy, $C_1-C_6$ alkylcyclohexyl, hydroxmethyl cyclohexyl, aryl and heteroaryl; with the provision that two acidic groups containing one acidic proton each or one acidic group containing two acidic hydrogens be present in the diacidic compounds.

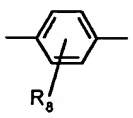
53. The composition of claim 26 or 27 wherein the light absorbing portion of A comprises the residue of at least one light absorbing monomer selected from the group consisting of azo, disazo, bis-azo and azomethine and having respectively the structures:

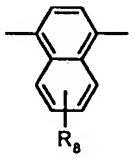
$R_6-N=N-Z$, $R_6-N=N-R_7-N=N-Z$, $R_6-N=N-Y_1-N=N-R_6$ and $D=HC-N=N-Z$

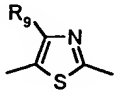
wherein $R_6$ is the residue of an aromatic or heteroaromatic amine which has been dizaotized and coupled with a coupling component H-Z and is derived from an amine

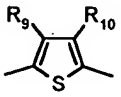
selected from the group consisting of aromatic and heteroaromatic amine classes selected from the group consisting of aniline, 1-aminonaphthalene, 1-aminoanthraquinone, 4-aminoazobenzene, 2-aminothiazole, 2-aminobenzothiazole, 3-amino-2,1-benzisothiazole, 2-aminothieno[2,3-d]thiazole, 5-aminoisothiazole, 5-aminopyrazole, 4-aminopyrazoloisothiazole, 2-amino-1,3,4-thiadiazole, 5-amino-1,2,4-thiadiazole, 5-amino-1,2,3-triazole, 2-amino-1,3,4-triazole, 2(5) aminoimidazole, 3-aminopyridine, 2(3) aminothiophene, 2(3) aminobenzo[b]thiophene, 2-aminothieno[3,2-b]thiophene, 3-aminothieno[2,3-c]isothiazole, 3-amino-7-benz-2,1-isothiazole, 3-aminobenzothienoisothiazole, 3-aminoisothiazole[3,4-d]pyrimidine, 5-amino-1,2,3-triazole, 3(4) aminophthalimide and 5(6) amino-1,2-benzisothiazolon-1,1-dioxide with said aromatic and heteroaromatic ring systems being unsubstituted or substituted with one or more groups selected from $C_1$-$C_{10}$ alkyl, $C_1$-$C_6$ alkoxy, $C_3$-$C_8$ cycloalkyl, carboxy, halogen, $C_1$-$C_6$ alkoxycarbonyl, formyl, $C_1$-$C_6$ alkanoyl, $C_1$-$C_6$ alkanoyloxy, dicyanovinyl, $C_3$-$C_8$-cycloalkanoyl, thiocyano, trifluroacetyl, cyano, carbamoyl, -CONH-$C_1$-$C_6$ alkyl, CONHaryl, CON($C_1$-$C_6$ alkyl)$_2$, sulfamoyl, $SO_2$NH $C_1$-$C_6$ alkyl, $SO_2$N($C_1$-$C_6$ alkyl)$_2$, $SO_2$NHaryl, $SO_2$NH $C_3$-$C_8$ cycloalkyl, CONH $C_3$-$C_8$ cycloalkyl, aryl, aroyl, -NHS$O_2$ $C_1$-$C_6$ alkyl, -N($C_1$-$C_6$ alkyl)S$O_2$ $C_1$-$C_6$ alkyl, -NHS$O_2$ aryl, NHCO $C_1$-$C_6$ alkyl, NHCO $C_3$-$C_8$ cycloalkyl, NHCOaryl, NHC$O_2$ $C_1$-$C_6$ alkyl, NHCONH $C_1$-$C_6$ alkyl, NHCONHaryl, N($C_1$-$C_6$ alkyl)aryl, arylazo, heteroaryl, aryloxy, arylthio, $C_3$-$C_8$ cycloalkoxy, heteroarylazo, heteroarylthio, arylsulfonyl, tricyanovinyl, aryloxysulfonyl, $C_1$-$C_6$ alkylsulfonyl, trifluoromethyl, fluorosulfonyl, trifluoromethylsulfonyl, thiocyano, hydroxy, nitro or CH=D, wherein D is the residue of an active methylene compound selected from the group consisting of malononitrile, α-cyanoacetic acid esters, malonic acid esters, α-cyanacetic acid amides, α-$C_1$-$C_6$

alkylsulfonylacetonitriles, α-arylsulfonylacetonitriles, α-$C_1$-$C_6$ alkanoylacetonitriles, α-aroylacetonitriles, α-heteroarylacetonitriles, bis(heteroaryl)methanes, 1,3-indanediones, 2-furanones, benzo-2-furanones, naphtho-2-furanones, 2-indolones, 3-cyano-1,6-dihydro-4-methyl-2,6-dioxy (2H)-pyridines, benzo (b) thieno-3-ylidene propane dinitrile-5,5-dioxides, 1,3-bis(dicyanomethylene) indanes, barbituric acid, 5-pyrazolones, dimedone, 3-oxo-2,3-dihydro-1-benzothiophene-1,1-dioxides or aryl-$C(CH_3)C=C(CN)_2$; wherein $R_7$ is a divalent aromatic or heteroaromatic radical selected from the group consisting of 1,4-phenylene, naphthalene-1,4-diyl, thiazol-2,5-diyl and thiophene-2,5-diyl:



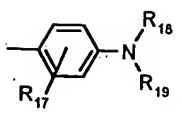



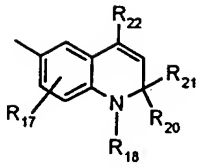



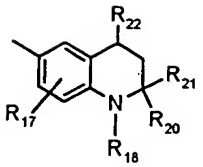

wherein $R_8$ is selected from the group consisting of hydrogen or 1-2 groups selected from $C_1$-$C_6$ alkyl, $C_1$-$C_6$ alkoxy, cyano, halogen, -NHCO $C_1$-$C_6$ alkyl, -$NHCO_2$ $C_1$-$C_6$ alkyl, -NHCO aryl, -NHCONH aryl or NHCONH $C_1$-$C_6$ alkyl; $R_9$ is selected from the group consisting of hydrogen, $C_1$-$C_6$ alkyl, halogen, aryl, heteroaryl; $R_{10}$ is selected from the group consisting of hydrogen, $C_1$-$C_6$ alkoxycarbonyl, cyano, carbamoyl, aryl, arylsulfonyl, aroyl, -CONH $C_1$-$C_6$ alkyl, or $C_1$-$C_6$ alkylsulfonyl; wherein Z is the residue of a coupling compound selected from the group consisting of electron rich compound classes of anilines, 1-aminonaphthalenes, 1,2-dihydroquinolines,1,2,3,4-tetrahydroquinolines, benzomorpholines (3,4-dihydro-2H-1,4-benzoxazine),

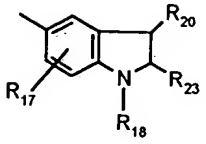
pyrazolones, pyrazoles, 3-cyano-6-hydroxy-2-pyridones, 2,3-dihydroindoles, indoles, 4-hydroxycoumarins, 4-hydroxy-2-quinolones, imidazo[2,1-b]thiazoles, julolidines (2,3,6,7-tetrahydro-1H,5H-benzo[ij]quinolizines), 1-oxajulolidines, 1,2,5,6-tetrahydro-4H-pyrrolo[3,2,1-ij]quinolines, 2,6-diamino-3 cyanopyridines, 2-aminothiazoles, 2-aminothiophenes, 5,5-dimethyl-1,3-cyclohexanedione (dimedone), phenols, naphthols, 2,4-pentanediones or acetoacetarylides; wherein $Y_1$ is the residue of a bis coupling component selected from the group consisting of anilines, 1,2-dihydroquinolines, 1,2,3,4-tetrahydroquinolines, benzomorpholines (3,4-dihydro- 2H-1,4-benzoxazines), 3-cyano-6-hydroxy-2-pyridones, 2,6-diaminopyridines, 2,3-dihydroindoles, naphthylamines, 2-aminothiazoles, or a combination of these; with the provision that two acidic functional groups containing one acidic hydrogen each or a functional group containing two acidic hydrogen are present in the diacidic light absorbing monomer.

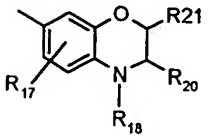
54. The composition of claim 53 wherein Z is selected from the group consisting of:

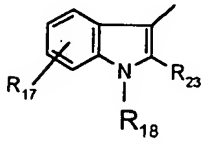


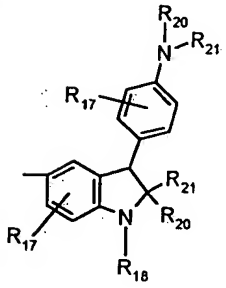


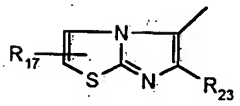


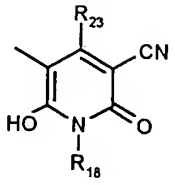


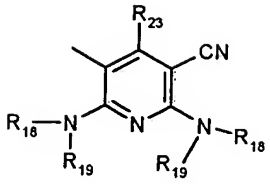


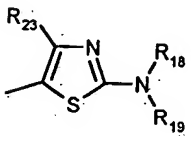


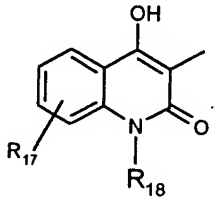


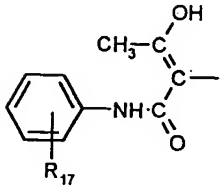


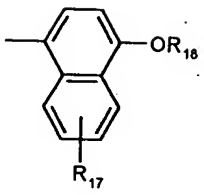


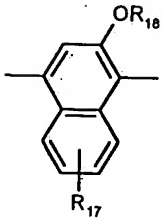


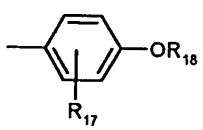


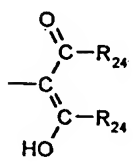












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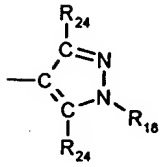

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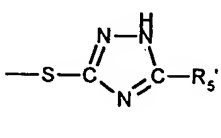
wherein $R_{17}$ is selected from the group consisting of hydrogen, 1-2 groups selected from $C_1$-$C_6$ alkyl, $C_1$-$C_6$ alkoxy, $C_1$-$C_6$ alkylthio, -O $C_2$-$C_6$ alkylene-OH, O $C_2$-$C_6$ alkylene- $C_1$-$C_6$ alkanoyloxy, $C_1$-$C_6$ alkylene-OH, $C_1$-$C_6$ alkylene- $C_1$-$C_6$ alkanoyloxy, halogen, carboxy, $C_1$-$C_6$ alkoxycarbonyl, trifluoromethyl, $NHCOR_{24}$ , $NHCO_2R_{24}$, $NHCON(R_{24})R_{25}$, and $NHSO_2R_{25}$, wherein $R_{24}$ is selected from the group consisting of hydrogen, $C_1$-$C_{10}$ alkyl, $C_3$-$C_8$ cycloalkyl or aryl, $R_{25}$ is selected from the group consisting of $C_1$-$C_{10}$ alkyl, $C_3$-$C_8$ cycloalkyl or aryl wherein each $C_1$-$C_{10}$ alkyl group in $R_{24}$ and $R_{25}$ may be further substituted with one or more groups selected from the group consisting of $C_3$-$C_8$ cycloalkyl, aryl, aryloxy, arylthio, $CO_2H$, $CO_2$ $C_1$-$C_6$ alkyl, cyano, hydroxy, succinimido, $C_1$-$C_6$ alkoxy,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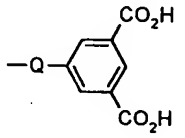
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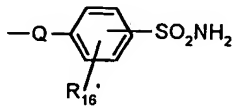
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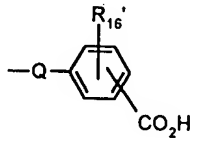
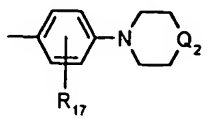

;

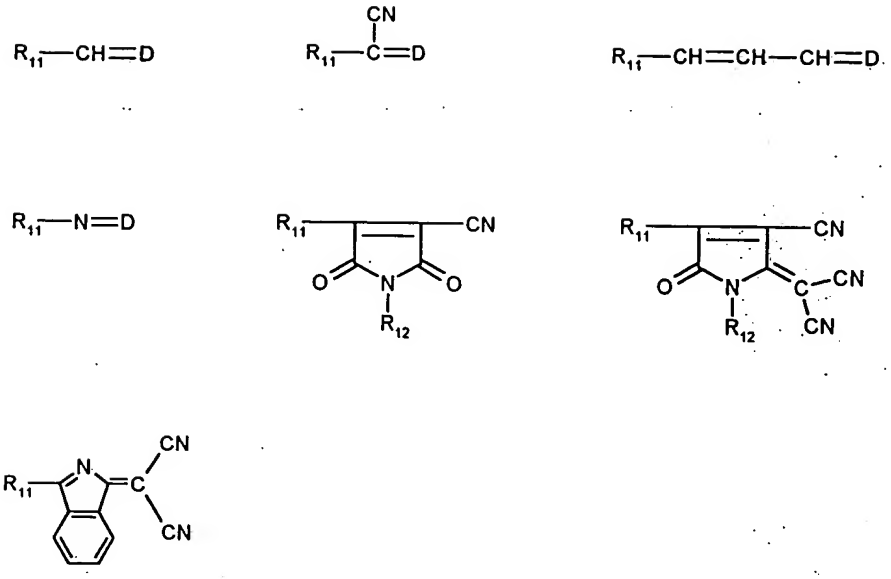
wherein $R_5'$ is selected from the group consisting of hydrogen, $C_1$-$C_6$ alkyl or aryl; $R_{16}'$ is selected from hydrogen or one or two groups selected from $C_1$-$C_6$ alkyl, halogen and $C_1$-$C_6$ alkoxy; Q is selected from the group consisting of -O-, $-N(COR_{10})-$, $-N(R_{10})-$, -S-, $-SO_2-$, $-CO_2-$, $-CON(R_{10})$, $-SO_2(R_{10})-$, wherein $R_{10}$ is selected from the group consisting of hydrogen, aryl, $C_3$-$C_8$ cycloalkyl or $C_1$-$C_{10}$ alkyl; $R_{18}$ and $R_{19}$ are independently selected from the group consisting of hydrogen, unsubstituted $C_1$-$C_{10}$ alkyl, substituted $C_1$-$C_{10}$ alkyl, $C_3$-$C_8$ cycloalkyl, $C_3$-$C_8$ alkenyl, $C_3$-$C_8$ alkynyl and aryl or $R_{18}$ and $R_{19}$ may be

combined with another element to which they are attached to form a radical Z having the formula



wherein $Q_2$ is selected from the group consisting of a covalent bond, -O-, -S-, $-SO_2-$, -CO-, $-CO_2-$, $-N-(C_1-C_6$ alkyl)-, $-N(COC_1-C_6$ alkyl)-, $-N(SO_2C_1-C_6$ alkyl)-, -N(CO aryl)-, or$-N(SO_2$ aryl); $R_{20}$, $R_{21}$ and $R_{22}$ are independently selected from the group consisting of hydrogen or $C_1-C_6$ alkyl; $R_{23}$ is selected from the group consisting of hydrogen, $C_1-C_6$ alkyl, $C_3-C_8$ cycloalkyl, heteroaryl or aryl.

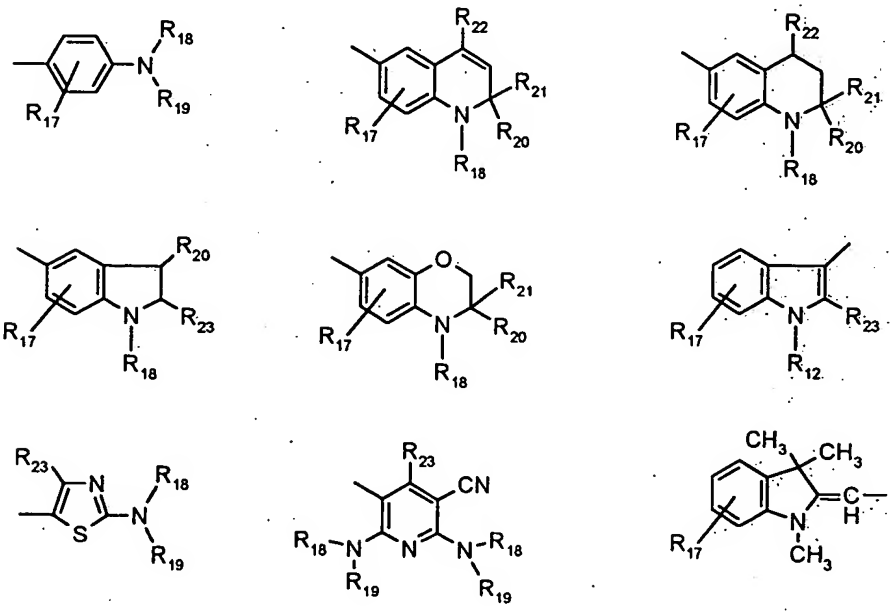
55. The composition of claim 26 or 51 wherein the light absorbing portion of A comprises the residue of at least one light absorbing monomer selected from the group consisting of methine, arylidene, polmethine, azamethine, 3-aryl-2,5-dioxypyrroline, 3-aryl-5-dicyanomethylene-2-oxypyrroline and arylisoindoline and having respectively the structures:

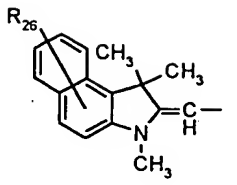
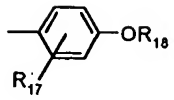


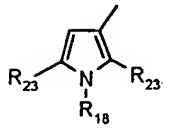
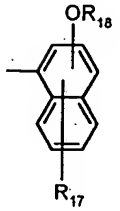
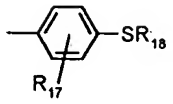
wherein $R_{11}$ is the residue of an electron rich aromatic compound selected from the group consisting of an aniline, 1-naphthylamine, 1,2-dihydroquinoline, 1,2,3,4-tetrahydroquinoline, 1,3,3-trimethyl- 2-methyleneindole, 1,3-dihydro-2-methylene- 1,1,3-trimethyl-2H-benz[e]indole, imidazo [2,1-b] thiazole, benzomorpholine (3,4-dihydro-2H-1,4,benzoxazine), 2,3-dihydroindole, indole, 2-aminothiazole, julolidine (2,3,6,7-tetrahydro-1H, 5H- benz [ij] quinolizine, 1-oxajulolidine, 4H-pyrrolo [3,2,1-ij]-quinoline, phenol, naphthol, thiophenol, pyrrole, pyrazole, furan, thiophene, carbazole, phenothiazine or phenoxazine compound; $R_{12}$ is selected from the group consisting of hydrogen, $C_1$-$C_{10}$ alkyl, $C_3$-$C_8$ alkenyl, $C_3$-$C_8$-alkynyl, $C_3$-$C_8$ cycloalkyl, aryl, $+CH_2CH_2O+_{1-3}$ $R_{13}$ and $C_1$-$C_4$ alkylene- $C_3$-$C_8$ cycloalkylene, wherein the $C_1$-$C_6$ alkyl groups may be substituted by at least one group selected from the group consisting of carboxy, $C_1$-$C_6$ carbalkoxy, $C_1$-$C_6$ alkanoyloxy, cyano, hydroxy, chlorine, fluorine, $C_1$-$C_6$ alkoxy, $C_3$-$C_8$ cycloalkyl or aryl; $R_{13}$ is selected from the group consisting of hydrogen, $C_1$-$C_6$ alkoxy or $C_1$-$C_6$ alkanoyloxy; wherein D is the residue of an active

methylene compound selected from the group consisting of malononitrile, α-cyanoacetic acid esters, malonic acid esters, α-cyanacetic acid amides, α-$C_1$-$C_6$ alkylsulfonylacetonitriles, α-arylsulfonylacetonitriles, α-$C_1$-$C_6$ alkanoylacetonitriles, α-aroylacetonitriles, α-heteroarylacetonitriles, bis(heteroaryl)methanes, 1,3-indanediones, 2-furanones, benzo-2-furanones, naphtho-2-furanones, 2-indolones, 3-cyano-1,6-dihydro-4-methyl-2,6-dioxy (2H)-pyridines, benzo (b) thieno-3-ylidene propane dinitrile-5,5-dioxides, 1,3-bis(dicyanomethylene) indanes, barbituric acid, 5-pyrazolones, dimedone, 3-oxo-2,3-dihydro-1-benzothiophene-1,1-dioxides or aryl-$C(CH_3)C=C(CN)_2$, with the proviso that two acidic functional groups containing one acidic hydrogen each, or a functional group containing two acidic hydrogens are present.

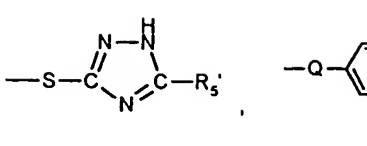
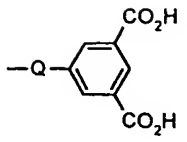
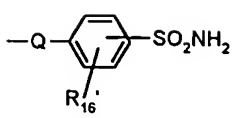
56. The composition of claim 55 wherein $R_{11}$ is selected from the group consisting of the electron rich aromatic residues corresponding to the structures:

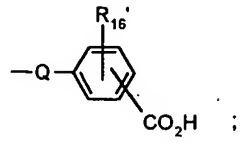


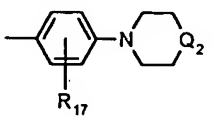



or


wherein $R_{26}$ is selected from the group consisting of hydrogen or a group selected from the group consisting of $C_1$-$C_6$ alkoxycarbonyl, $CO_2H$, $C_1$-$C_6$ alkyl or $C_1$-$C_6$ alkoxy; wherein $R_{17}$ is selected from the group consisting of hydrogen, and 1-2 groups selected from $C_1$-$C_6$ alkyl, $C_1$-$C_6$ alkoxy, $C_1$-$C_6$ alkylthio, -O $C_2$-$C_6$ alkylene-OH, O $C_2$-$C_6$ alkylene- $C_1$-$C_6$ alkanoyloxy, $C_1$-$C_6$ alkylene-OH, $C_1$-$C_6$ alkylene- $C_1$-$C_6$ alkanoyloxy, halogen, carboxy, $C_1$-$C_6$ alkoxycarbonyl, trifluoromethyl, $NHCOR_{24}$ , $NHCO_2R_{24}$, $NHCON(R_{24})R_{25}$, and $NHSO_2R_{25}$, wherein $R_{24}$ is selected from the group consisting of hydrogen, $C_1$-$C_{10}$ alkyl, $C_3$-$C_8$ cycloalkyl or aryl, $R_{25}$ is selected from the group consisting of $C_1$-$C_{10}$ alkyl, $C_3$-$C_8$ cycloalkyl or aryl wherein each $C_1$-$C_{10}$ alkyl group in $R_{24}$ and $R_{25}$ may be further substituted with one or more groups selected from the group consisting of $C_3$-$C_8$ cycloalkyl, aryl, aryloxy, arylthio, $CO_2H$, $CO_2$ $C_1$-$C_6$ alkyl,

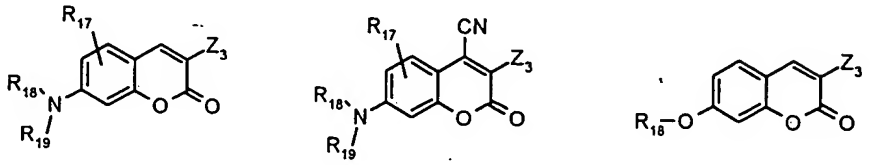
or  ;

wherein $R_5'$ is selected from the group consisting of hydrogen, $C_1$-$C_6$ alkyl or aryl; $R_{16}'$ is selected from the group consisting of hydrogen, one or two groups selected from $C_1$-$C_6$ alkyl, halogen and $C_1$-$C_6$ alkoxy; Q is selected from the group consisting of -O-, -N($COR_{10}$)-, -N($R_{10}$)-, -S-, -$SO_2$-, -$CO_2$-, CON($R_{10}$), $SO_2$($R_{10}$)-, wherein $R_{10}$ is selected from the group consisting of hydrogen, aryl, $C_3$-$C_8$ cycloalkyl or $C_1$-$C_{10}$ alkyl; $R_{18}$ and $R_{19}$ are independently selected from the group consisting of hydrogen, unsubstituted $C_1$-$C_{10}$ alkyl, substituted $C_1$-$C_{10}$ alkyl, $C_3$-$C_8$ cycloalkyl, $C_3$-$C_8$ alkenyl, $C_3$-$C_8$ alkynyl and aryl or $R_{18}$ and $R_{19}$ may be combined with another element to which they are attached to form a radical Z having the formula

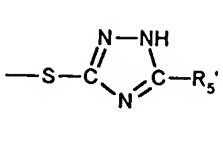
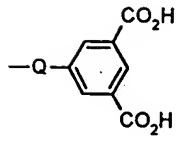
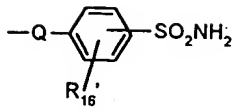


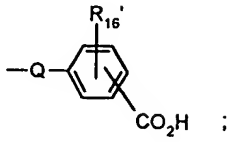
wherein $Q_2$ is selected from the group consisting of a covalent bond, -O-, -S-, -$SO_2$-, -CO-, -$CO_2$-, -N-($C_1$-$C_6$ alkyl)-, -N(CO $C_1$-$C_6$ alkyl)-, -N($SO_2$ $C_1$-$C_6$ alkyl)-, -N(CO aryl)-, or-N($SO_2$ aryl); $R_{20}$, $R_{21}$ and $R_{22}$ are independently selected from the group consisting of hydrogen or $C_1$-$C_6$ alkyl; $R_{23}$ is selected from the group consisting of hydrogen, $C_1$-$C_6$ alkyl, $C_3$-$C_8$ cycloalkyl, heteroaryl or aryl.

57. The composition of claim 51 wherein the light absorbing portion of $A_2$ comprises a residue of at least one diacidic coumarin compounds selected from the group consisting of the structures

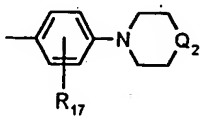


wherein $Z_3$ is selected from the group consisting of cyano, $C_1$-$C_6$ alkoxycarbonyl, $C_1$-$C_6$ alkylsulfonyl, arylsulfonyl, aryl, heteroaryl, formyl, aroyl, $C_1$-$C_6$ alkanoyl or -CH=D, wherein $R_{17}$ is selected from the group consisting of hydrogen, 1-2 groups selected from $C_1$-$C_6$ alkyl, $C_1$-$C_6$ alkoxy, $C_1$-$C_6$ alkylthio, -O $C_2$-$C_6$ alkylene-OH, O $C_2$-$C_6$ alkylene- $C_1$-$C_6$ alkanoyloxy, $C_1$-$C_6$ alkylene-OH, $C_1$-$C_6$ alkylene- $C_1$-$C_6$ alkanoyloxy, halogen, carboxy, $C_1$-$C_6$ alkoxycarbonyl, trifluoromethyl, $NHCOR_{24}$ , $NHCO_2R_{24}$, $NHCON(R_{24})R_{25}$, and $NHSO_2R_{25}$, wherein $R_{24}$ is selected from the group consisting of hydrogen, $C_1$-$C_{10}$ alkyl, $C_3$-$C_8$ cycloalkyl or aryl, $R_{25}$ is selected from the group consisting of $C_1$-$C_{10}$ alkyl, $C_3$-$C_8$ cycloalkyl or aryl wherein each $C_1$-$C_{10}$ alkyl group in $R_{24}$ and $R_{25}$ may be further substituted with one or more groups selected from the group consisting of $C_3$-$C_8$ cycloalkyl, aryl, aryloxy, arylthio, $CO_2H$, $CO_2$ $C_1$-$C_6$ alkyl, cyano, hydroxy, succinimido, $C_1$-$C_6$ alkoxy,

or 

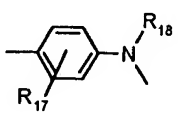
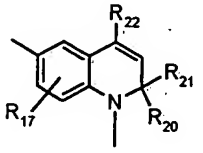
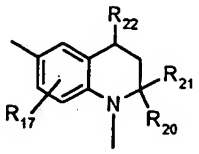
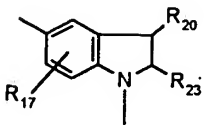
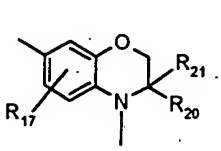
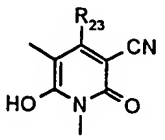
wherein $R_5'$ is selected from the group consisting of hydrogen, $C_1$-$C_6$ alkyl or aryl; $R_{16}'$ is selected from hydrogen or one or two groups selected from $C_1$-$C_6$ alkyl, halogen, and $C_1$-$C_6$ alkoxy; Q is selected from the group consisting of -O-, -N($COR_{10}$)-, -N($R_{10}$)-, -S-, -$SO_2$-, -$CO_2$-, CON($R_{10}$), $SO_2$($R_{10}$)-, wherein $R_{10}$ is selected from the group consisting of hydrogen, aryl, $C_3$-$C_8$ cycloalkyl or $C_1$-$C_{10}$ alkyl; $R_{18}$ and $R_{19}$ are independently selected from the group consisting of hydrogen, unsubstituted $C_1$-$C_{10}$ alkyl, substituted $C_1$-$C_{10}$ alkyl, $C_3$-$C_8$ cycloalkyl, $C_3$-$C_8$ alkenyl, $C_3$-$C_8$ alkynyl and aryl or $R_{18}$ and $R_{19}$ may be combined with another element to which they are attached to form a radical Z having the formula



wherein $Q_2$ is selected from the group consisting of a covalent bond, -O-, -S-, -$SO_2$-, -CO-, -$CO_2$-, -N-($C_1$-$C_6$ alkyl)-, -N(CO $C_1$-$C_6$ alkyl)-, -N($SO_2$ $C_1$-$C_6$ alkyl)-, -N(CO aryl)-, or-N($SO_2$ aryl); $R_{20}$, $R_{21}$ and $R_{22}$ are independently selected from the group consisting of or $C_1$-$C_6$ alkyl; $R_{23}$ is selected from the group consisting of hydrogen, $C_1$-$C_6$ alkyl, $C_3$-$C_8$ cycloalkyl, heteroaryl or aryl; wherein D is the residue of an active methylene compound selected from

the group consisting of malononitrile, α-cyanoacetic acid esters, malonic acid esters, α-cyanacetic acid amides, α-$C_1$-$C_6$ alkylsulfonylacetonitriles, α-arylsulfonylacetonitriles, α-$C_1$-$C_6$ alkanoylacetonitriles, α-aroylacetonitriles, α-heteroarylacetonitriles, bis(heteroaryl)methanes, 1,3-indanediones, 2-furanones, benzo-2-furanones, naphtho-2-furanones, 2-indolones, 3-cyano-1,6-dihydro-4-methyl-2,6-dioxy (2H)-pyridines, benzo (b) thieno-3-ylidene propane dinitrile-5,5-dioxides, 1,3-bis(dicyanomethylene) indanes, barbituric acid, 5-pyrazolones, dimedone, 3-oxo-2,3-dihydro-1-benzothiophene-1,1-dioxides or aryl-$C(CH_3)C=C(CN)_2$, with the proviso that two acidic functional groups containing one acidic hydrogen each, or a functional group containing two acidic hydrogens are present.

58. The composition of claim 54 wherein the light absorbing portion of $A_1$ comprises the residue of at least one bis-azo light absorbing monomer wherein the bis coupling component $Y_1$ is represented by the structure $Z_1$-$L_1$-$Z_2$, wherein $Z_1$ and $Z_2$ are independently selected from the group consisting of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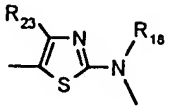
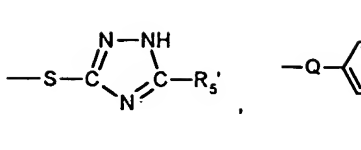
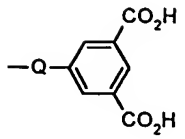
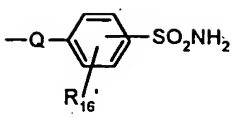
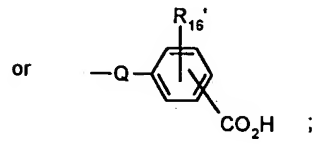
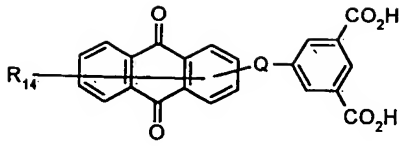

;

wherein, $L_1$ is bonded to the nitrogen atom of $Z_1$ and $Z_2$; wherein $L_1$ is selected from the group consisting of $C_2$-$C_{12}$ alkylene, $C_3$-$C_8$ cycloalkylene, arylene, $C_1$-$C_4$ alkylene-$C_3$-$C_8$ cycloalkylene-$C_1$-$C_4$ alkylene, $C_1$-$C_4$ alkylene-arylene-$C_1$-$C_4$ alkylene, $C_2$-$C_4$ alkylene-O-arylene-O-$C_2$-$C_4$ alkylene, $+C_2$-$C_4$ alkylene O$+_{1-3}$ $C_2$-$C_4$ alkylene, $C_2$-$C_4$ alkylene-S-$C_2$-$C_4$ alkylene, $C_2$-$C_4$ alkylene-$SO_2$-$C_2$-$C_4$ alkylene, $C_2$-$C_4$ alkylene-N($SO_2$ $C_1$-$C_6$ alkyl)-$C_2$-$C_4$ alkylene, $C_2$-$C_4$ alkylene-N($SO_2$ aryl)-$C_2$-$C_4$-alkylene, $C_2$-$C_4$ alkylene-$OCO_2$-$C_2$-$C_4$ alkylene, $C_2$-$C_4$ alkylene-$O_2C$-arylene-$CO_2$-$C_2$-$C_4$ alkylene, $C_2$-$C_4$ alkylene-$O_2C$-$C_1$-$C_{12}$ alkylene-$CO_2$-$C_2$-$C_4$ alkylene, $C_2$-$C_4$ alkylene-$O_2C$-$C_3$-$C_8$ cycloalkylene-$CO_2$-$C_2$-$C_4$ alkylene, $C_2$-$C_4$ alkylene-NHCO-$C_2$-$C_4$ alkylene and $C_2$-$C_4$ alkylene-$NHSO_2$-$C_2$-$C_4$ alkylene; wherein $R_{17}$ is selected from the group consisting of hydrogen, 1-2 groups selected from $C_1$-$C_6$ alkyl, $C_1$-$C_6$ alkoxy, $C_1$-$C_6$ alkylthio, -O $C_2$-$C_6$ alkylene-OH, O $C_2$-$C_6$ alkylene-$C_1$-$C_6$ alkanoyloxy, $C_1$-$C_6$ alkylene-OH, $C_1$-$C_6$ alkylene-$C_1$-$C_6$ alkanoyloxy, halogen, carboxy, $C_1$-$C_6$ alkoxycarbonyl, trifluoromethyl, $NHCOR_{24}$, $NHCO_2R_{24}$, $NHCON(R_{24})R_{25}$, and $NHSO_2R_{25}$, wherein $R_{24}$ is selected from the group consisting of hydrogen, $C_1$-$C_{10}$ alkyl, $C_3$-$C_8$ cycloalkyl or aryl, $R_{25}$ is selected from the group consisting of $C_1$-$C_{10}$ alkyl, $C_3$-$C_8$ cycloalkyl or aryl wherein each $C_1$-$C_{10}$ alkyl group in $R_{24}$ and $R_{25}$ may be further substituted with one or more groups selected from the group consisting of $C_3$-$C_8$ cycloalkyl, aryl, aryloxy, arylthio, $CO_2H$, $CO_2$ $C_1$-$C_6$ alkyl, cyano, hydroxy, succinimido, $C_1$-$C_6$ alkoxy,

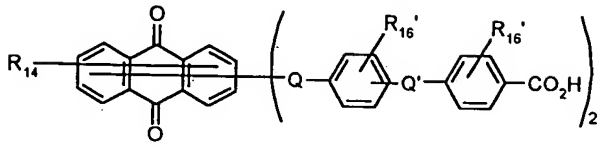





wherein $R_5'$ is selected from the group consisting of hydrogen, $C_1$-$C_6$ alkyl or aryl; $R_{16}'$ is selected from hydrogen or one or two groups selected from $C_1$-$C_6$ alkyl, halogen and $C_1$-$C_6$ alkoxy; Q is selected from the group consisting of -O-, -N($COR_{10}$)-, -N($R_{10}$)-, -S-, -$SO_2$-, -$CO_2$-, CON($R_{10}$), $SO_2$($R_{10}$)-, wherein $R_{10}$ is selected from the group consisting of hydrogen, aryl, $C_3$-$C_8$ cycloalkyl or $C_1$-$C_{10}$ alkyl; $R_{18}$ is selected from the group consisting of hydrogen, unsubstituted $C_1$-$C_{10}$ alkyl, substituted $C_1$-$C_{10}$ alkyl, $C_3$-$C_8$ cycloalkyl, $C_3$-$C_8$ alkenyl, $C_3$-$C_8$ alkynyl and aryl; $R_{20}$, $R_{21}$ $R_{22}$ are independently selected from the group consisting of or $C_1$-$C_6$ alkyl; $R_{23}$ is selected from the group consisting of hydrogen, $C_1$-$C_6$ alkyl, $C_3$-$C_8$ cycloalkyl, heteroaryl or aryl.

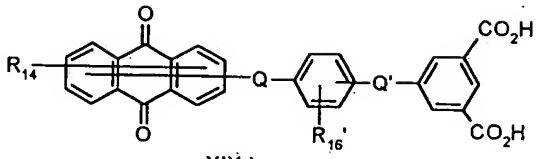
59. The diacidic anthraquinone compounds having Formulae



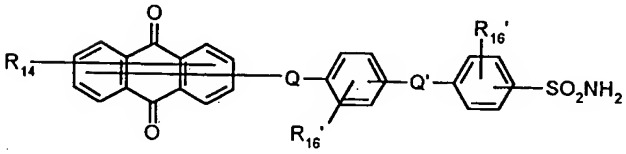
XIV



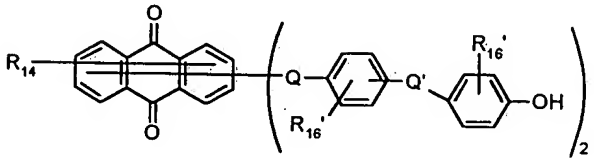
XIXc



XIXd



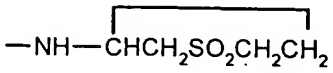
XIXe



XIXf

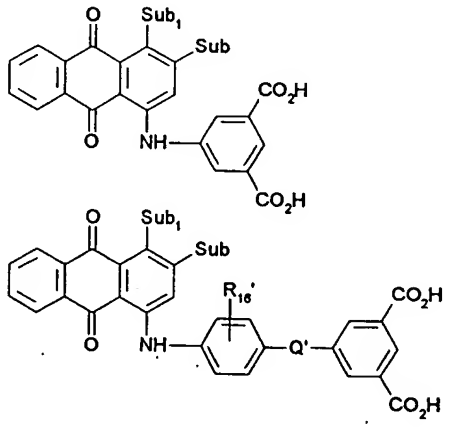
wherein $R_{14}$ is selected from the group consisting of hydrogen, 1-4 groups selected from amino, $C_1$-$C_{10}$ alkylamino, $C_3$-$C_8$ alkenylamino, $C_3$-$C_8$ alkynylamino, $C_3$-$C_8$ cycloalkylamino, arylamino, halogen, $C_1$-$C_6$ alkoxy, $C_1$-$C_6$ alkylthio, aryl, aroyl, $C_1$-$C_6$ alkanoyl, $C_1$-$C_6$ alkanoyloxy, NHCO $C_1$-$C_6$ alkyl, NHCOaryl, $NHCO_2$ $C_1$-$C_6$ alkyl, $NHSO_2$ $C_1$-$C_6$ alkyl, $NHSO_2$ aryl, $C_1$-$C_6$ alkoxycarbonyl, aryloxy, arylthio, heteroarylthio, cyano, nitro, trifluoromethyl, thiocyano, $SO_2C_1$-$C_6$ alkyl, $SO_2$ aryl, $-SO_2NH$ $C_1$-$C_6$ alkyl, $-SO_2N(C_1$-$C_6$ alkyl)$_2$, $-SO_2N(C_1$-$C_6$ alkyl) aryl, CONH $C_1$-$C_6$ alkyl, CON($C_1$-$C_6$ alkyl)$_2$, CON($C_1$-$C_6$ alkyl) aryl, $C_1$-$C_6$ alkyl, furfurylamino,

tetrahydrofurfurylamino, 4-(hydroxymethyl) cyclohexanemethylamino,



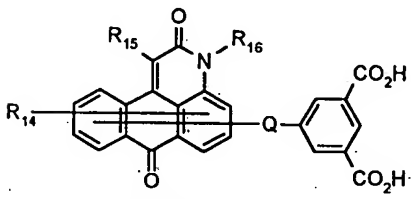
or hydroxy; Q and Q' are independently selected from the group consisting of-O-, $-N(COR_{10})-$, $-N(SO_2R_{10})-$, $-N(R_{10})-$, -S-, $-SO_2-$, $-CO_2-$, $-CON(R_{10})-$, $SO_2N(R_{10})-$, wherein $R_{10}$ is selected from the group consisting of hydrogen, aryl, $C_3$-$C_8$ cycloalkyl, or $C_1$-$C_{10}$ alkyl; $R_{16}'$ is selected from hydrogen or one or two groups selected from $C_1$-$C_6$ alkyl, halogen and $C_1$-$C_6$ alkoxy; wherein each $C_1$-$C_6$ alkyl group and $C_1$-$C_6$ alkyl group which is a portion of another group may contain at least one substituent selected from the group consisting of hydroxy, cyano, chlorine, fluorine, $C_1$-$C_6$ alkoxy, $C_3$-$C_8$ cycloalkoxy, $C_1$-$C_6$ alkylcyclohexyl, hydroxmethyl cyclohexyl, aryl and heteroaryl; with the provision that two acidic groups containing one acidic proton each or one acidic group containing two acidic hydrogens be present in the compounds of Formula XIV, XIXc, XIXd, XIXe XIXf.

60. The diacidic anthraquinone compounds of claim 57 having the following structures:

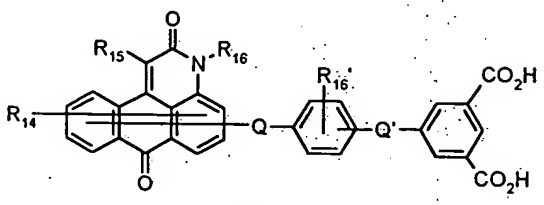


wherein Sub is a substituent selected from the group consisting of halogen, trifluoromethyl, aroyl, $C_1$-$C_6$ alkanoyl, $C_1$-$C_6$ alkoxycarbonyl, $C_1$-$C_6$ alkoxy, $C_1$-$C_6$ alkylthio, aryloxy, arylthio, heteroarylthio, cyano, nitro, $SO_2NHC_1$-$C_6$ alkyl, $SO_2N$ ($C_1$-$C_6$ alkyl)$_2$, $SO_2N$ ($C_1$-$C_6$ alkyl) aryl, CONH $C_1$-$C_6$ alkyl, CON ($C_1$-$C_6$ alkyl)$_2$, CON ($C_1$-$C_6$ alkyl) aryl, $C_1$-$C_6$ alkyl, $SO_2$ $C_1$-$C_6$ alkylsulfonyl and $SO_2$ aryl; $Sub_1$ is a substituent selected from the group consisting of amino, $C_1$-$C_{12}$ alkylamino, arylamino and $C_3$-$C_8$ cycloalkylamino.

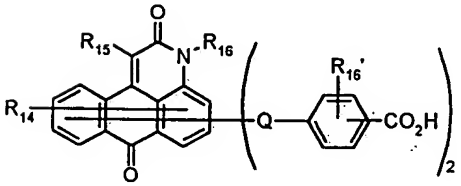
61. The diacidic anthrapyridone compounds having Formulae



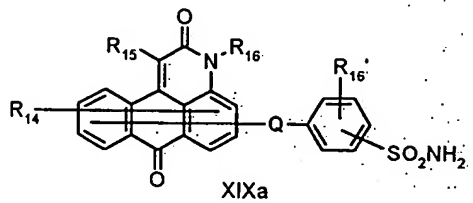
XVIII



XVIII a



XVIII b

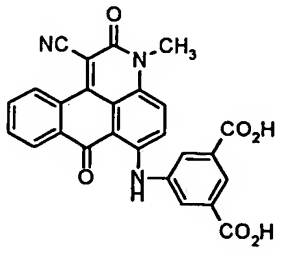


XIXa

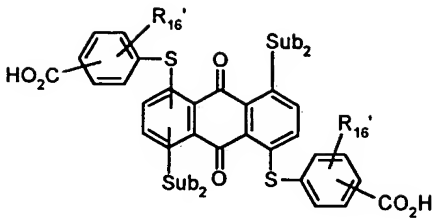
wherein $R_{14}$ is selected from the group consisting of hydrogen, 1-4 groups selected from amino, $C_1$-$C_{10}$ alkylamino, $C_3$-$C_8$ alkenylamino, $C_3$-$C_8$ alkynylamino, $C_3$-$C_8$ cycloalkylamino, arylamino, halogen, $C_1$-$C_6$ alkoxy, $C_1$-$C_6$ alkylthio, aryl, aroyl, $C_1$-$C_6$ alkanoyl, $C_1$-$C_6$ alkanoyloxy, NHCO $C_1$-$C_6$ alkyl, NHCOaryl, $NHCO_2$ $C_1$-$C_6$ alkyl, $NHSO_2$ $C_1$-$C_6$ alkyl, $NHSO_2$ aryl, $C_1$-$C_6$ alkoxycarbonyl, aryloxy, arylthio, heteroarylthio, cyano, nitro, trifluoromethyl, thiocyano, $SO_2C_1$-$C_6$ alkyl, $SO_2$ aryl, $-SO_2NH$ $C_1$-$C_6$ alkyl, $-SO_2N$($C_1$-$C_6$

alkyl)$_2$, -$SO_2N$($C_1$-$C_6$ alkyl) aryl, CONH $C_1$-$C_6$ alkyl, CON($C_1$-$C_6$ alkyl)$_2$, CON($C_1$-$C_6$ alkyl) aryl, $C_1$-$C_6$ alkyl or hydroxy; Q and Q' are independently selected from the group consisting of-O-, -N($COR_{10}$)-, -N($SO_2R_{10}$)-, -N($R_{10}$)-, -S-, -$SO_2$-, -$CO_2$-, -CON($R_{10}$)-, $SO_2N$ ($R_{10}$)-, wherein $R_{10}$ is selected from the group consisting of hydrogen, aryl, $C_3$-$C_8$ cycloalkyl, or $C_1$-$C_{10}$ alkyl; $R_{15}$ is selected from the group consisting of hydrogen, cyano, $C_1$-$C_6$ alkylamino, $C_1$-$C_6$ alkoxy, halogen, arylthio, aryl, heteroaryl, heteroarylthio, $C_1$-$C_6$ alkoxycarbonyl, aroyl or arylsulfonyl; $R_{16}$ is selected from the group consisting of hydrogen, $C_1$-$C_6$ alkyl, $C_3$-$C_8$ cycloalkyl and aryl; $R_{16}$' is selected from the group consisting of hydrogen or one or two groups selected from $C_1$-$C_6$ alkyl, halogen and $C_1$-$C_6$ alkoxy; wherein each $C_1$-$C_6$ alkyl group and $C_1$-$C_6$ alkyl group which is a portion of another group may contain at least one substituent selected from the group consisting of hydroxy, cyano, chlorine, fluorine, $C_1$-$C_6$ alkoxy, $C_3$-$C_8$ cycloalkoxy, $C_1$-$C_6$ alkylcyclohexyl, hydroxmethyl cyclohexyl, aryl and heteroaryl; with the provision that two acidic groups containing one acidic proton each or one acidic group containing two acidic hydrogens be present in the compounds of Formula XVIII, XVIIIa, XVIIIb, and XIXa.

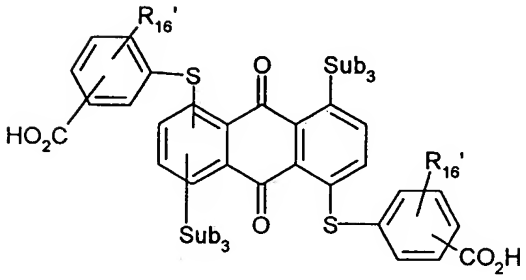
62. The diacidic anthrapyridone compound of claim 61 having the structure:



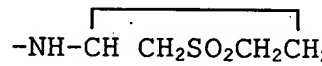

63. The diacidic anthraquinone compounds having the formulae



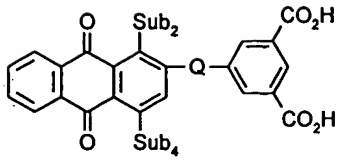
or

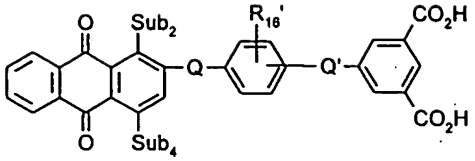


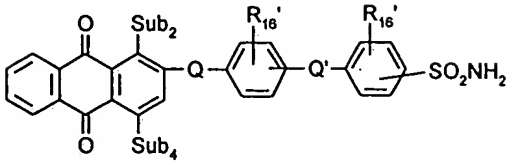
where $R_{16}'$ is selected from the group consisting of hydrogen or one or two groups selected from $C_1$-$C_6$ alkyl, halogen and $C_1$-$C_6$ alkoxy; and $Sub_3$ is a substituent selected from $C_1$-$C_6$ alkylthio, arylthio and heteroarylthio and $Sub_2$ is a substituent selected from the group consisting of amino, $C_1$-$C_{10}$ alkylamino, $C_3$-$C_8$ alkenylamino, $C_3$-$C_8$ alkynylamino, $C_3$-$C_8$ cycloalkylamino, arylamino, furfurylamino, tetrahydrofurfurylamino, 4-(hydroxymethyl) cyclohexanemethylamino, NHCO $C_1$-$C_6$ alkyl, NHCO aryl, $NHCO_2$ $C_1$-$C_6$ alkyl, $NHSO_2$ $C_1$-$C_6$ alkyl, $NHSO_2$ aryl and



64. The diacidic anthraquinone compounds of claim 59 having the formulae:

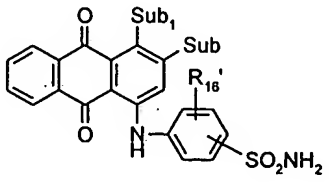






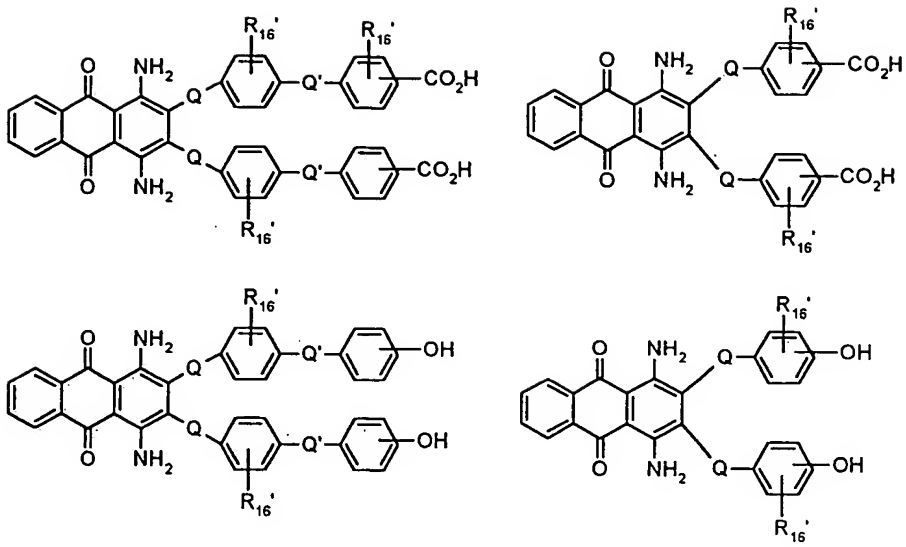
wherein $Sub_2$ is as defined in claim 63; $Sub_4$ is selected from the group consisting of $Sub_2$, NHCO $C_1$-$C_6$ alkyl, $NHCO_2$ $C_1$-$C_6$ alkyl, NHCO aryl, $NHSO_2$ $C_1$-$C_6$ alkyl, $NHSO_2$ aryl, $C_1$-$C_6$ alkylthio, arylthio, heteroarylthio and hydroxy; Q is selected from the group consisting of -O-, S-, $-SO_2-$; Q' selected from the group consisting of -O-, $-N(COR_{10})-$, $-N(SO_2R_{10})-$, $-N(R_{10})-$, -S-, $-SO_2-$, $-CO_2-$, $-CON(R_{10})-$, $SO_2N(R_{10})-$, wherein $R_{10}$ is selected from the group consisting of hydrogen, aryl, $C_3$-$C_8$ cycloalkyl, or $C_1$-$C_{10}$ alkyl.

65. A diacidic anthraquinone compounds having the formula



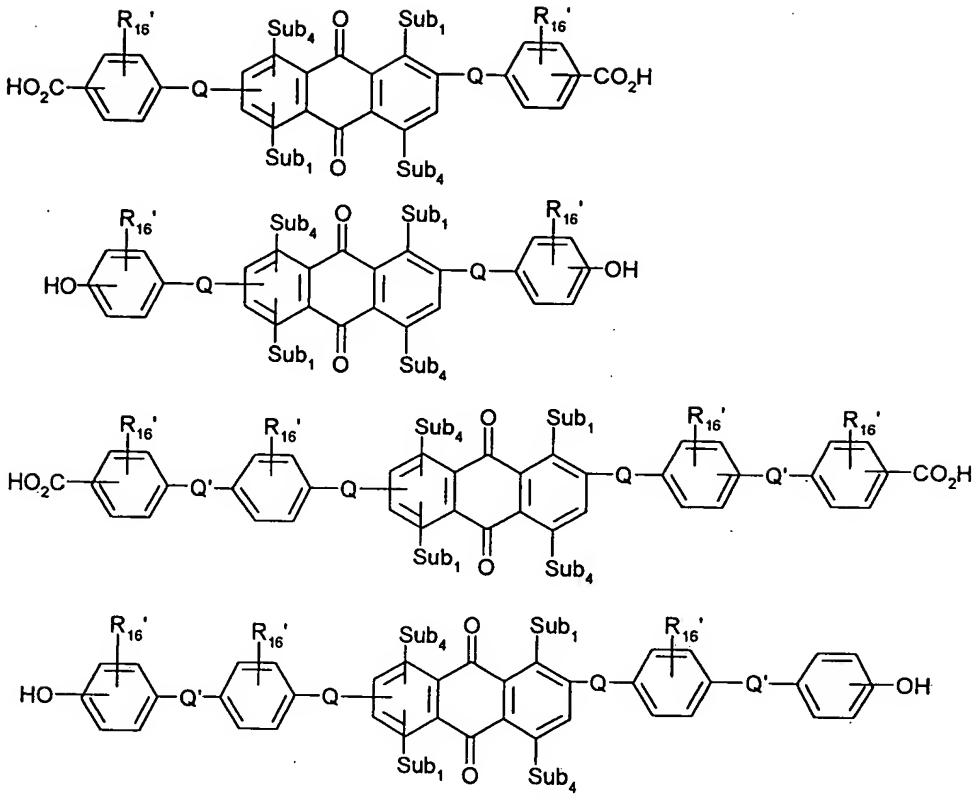
wherein Sub, $Sub_1$ and $R_{16}'$ are as defined in claim 60.

66. The diacidic anthraquinone compounds having the structures



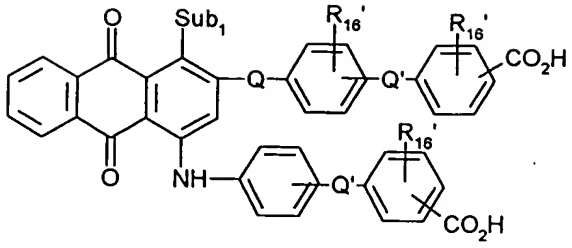
wherein Q is selected from the group consisting of -O-, -S- and $-SO_2-$; Q' is selected from the group consisting of-O-, $-N(COR_{10})-$, $-N(SO_2R_{10})-$, $-N(R_{10})-$, -S-, $-SO_2-$, $-CO_2-$, $-CON(R_{10})-$, $SO_2N(R_{10})-$, wherein $R_{10}$ is selected from the group consisting of hydrogen, aryl, $C_3-C_8$ cycloalkyl, or $C_1-C_{10}$ alkyl; and $R_{16}'$ is selected from the group consisting of hydrogen or one or two groups selected from $C_1-C_6$ alkyl, halogen and $C_1-C_6$ alkoxy.

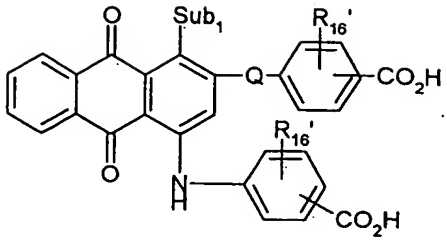
67. The diacidic anthraquinone compounds having the structures:



wherein $Sub_1$ defined as in claim 60, $Sub_4$ is defined as in claim 64, Q is selected from the group consisting of -O-, -S- and $-SO_2-$; Q' is selected from the group consisting of-O-, $-N(COR_{10})-$, $-N(SO_2R_{10})-$, $-N(R_{10})-$, -S-, $-SO_2-$, $-CO_2-$, $-CON(R_{10})-$, $SO_2N(R_{10})-$, wherein $R_{10}$ is selected from the group consisting of hydrogen, aryl, $C_3-C_8$ cycloalkyl, or $C_1-C_{10}$ alkyl; and $R_{16}'$ is selected from the group consisting of hydrogen or one or two groups selected from $C_1-C_6$ alkyl, halogen and $C_1-C_6$ alkoxy.

68. The diacidic anthraquinone compounds having the structures:





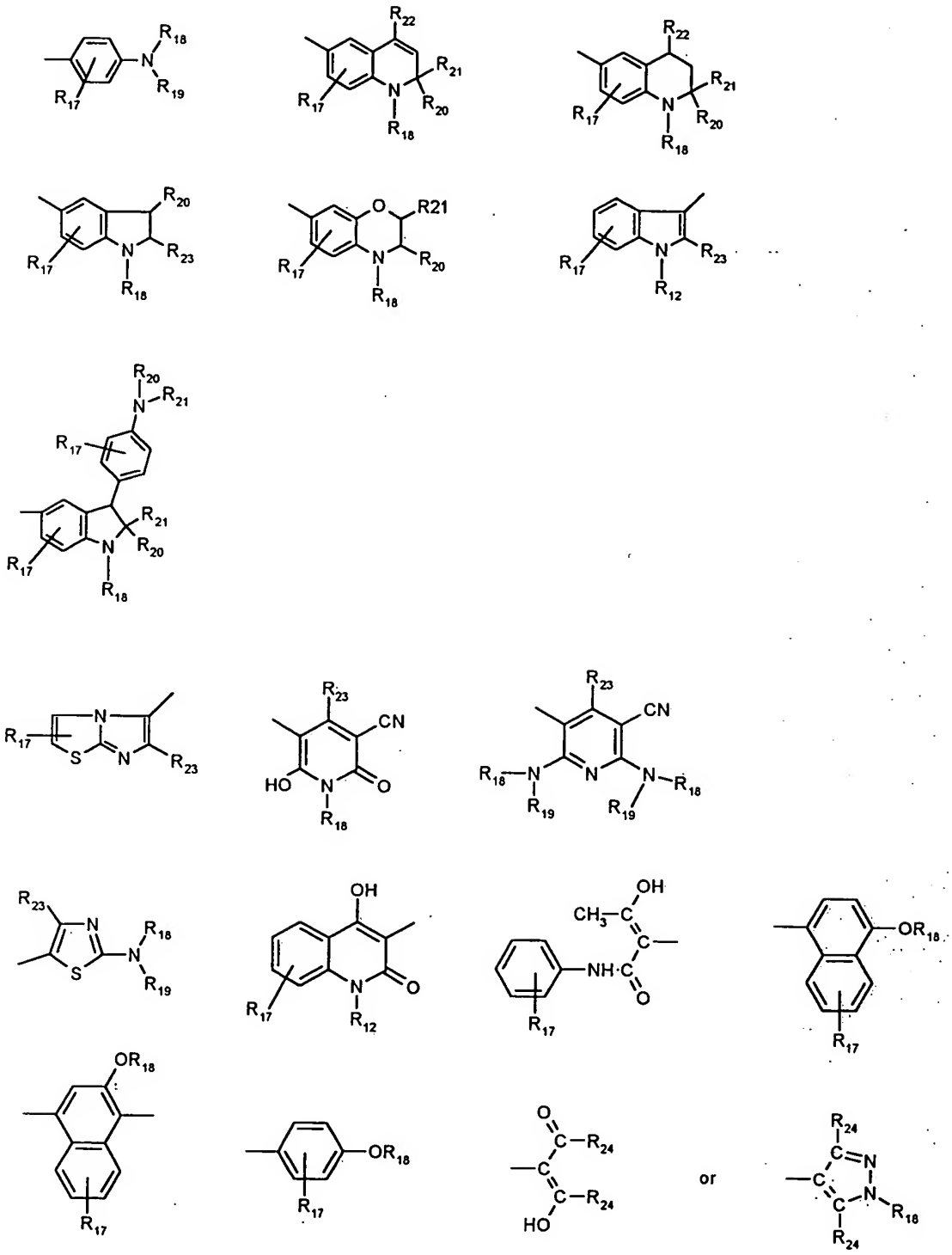
wherein Q is selected from the group consisting of -O-, -S- and $-SO_2-$; $Sub_1$ is a substitutent selected from the group consisting of amino, $C_1-C_{12}$ alkylamino, arylamino and $C_3-C_8$ cycloalkylamino; Q' is selected from the group consisting of-O-, $-N(COR_{10})-$, $-N(SO_2R_{10})-$, $-N(R_{10})-$, -S-, $-SO_2-$, $-CO_2-$, $-CON(R_{10})-$, $SO_2N(R_{10})-$, wherein $R_{10}$ is selected from the group consisting of hydrogen, aryl, $C_3-C_8$ cycloalkyl, or $C_1-C_{10}$ alkyl; and $R_{16}'$ is selected from the group consisting of hydrogen or one or two groups selected from $C_1-C_6$ alkyl, halogen and $C_1-C_6$ alkoxy.

69. The diacidic azo and disazo compounds of the formulae $R_6-N=N-Z$ (VI) and $R_6-N=N-R_7-N=N-Z$ (VII), respectively wherein $R_6$ is the residue of a diazotized aromatic or heteroaromatic amine and Z is the residue of an electron rich coupling component selected from the group consisting of the classes of anilines, 1-aminonaphthalenes, 1,2-dihydroquinolines, 1,2,3,4-teterahydroquinolines, benzomorpholines (3,4-dihydro-2H-1,4-benzoxazine), pyrazolones, pyrazoles, 3-cyano-6-hydroxy-2-pyridones, 2,3-dihydroindoles, indoles, 4-hydroxycoumarins, 4-hydroxy-2-quinolones, imidazo[2,1-b]thiazoles, julolidines (2,3,6,7-tetrahydro-1H,5H-benzo[ij]quinolizines), 1-oxajulolidines, 1,2,5,6-tetrahydro-4H-pyrrolo[3,2,1-ij]quinolines, 2,6-diamino-3 cyanopyridines, 2-aminothiazoles, 2-aminothiophenes, 5,5-dimethyl-1,3-cyclohexanedione (dimedone), phenols, naphthols, 2,4-pentanediones or acetoacetarylides; $R_7$ is a divalent aromatic or heteroaromatic radical selected from the group consisting of the classes of 1,4-phenylene, naphthalene -1, 4-diyl, thiazol-2,5-diyl and thiophene -

2,5-diyl; with the provision that $R_6$ or Z contains a carboxy ($-CO_2H$) acidic group and that another acidic group selected from the group consisting of ($-CO_2H$) , -SH, -OH attached to aromatic ring, -CONHCO-, $-SO_2NH-CO-$, $-SO_2NH-SO_2-$, and 1(H) 1, 2, 4-triazol-3-yl, be present on or as part of $R_6$ or Z so that each $R_6$ and Z moiety contains one acidic group.

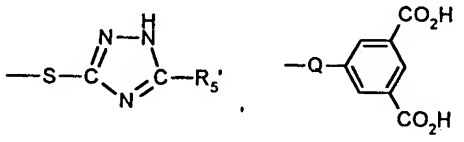
70. The diacidic azo and disazo compounds of claim 69 wherein $R_6$ and Z each contain a carboxy ($-CO_2H$) acidic group.

71. The diacidic azo and bisazo compounds of claim 69 wherein $R_6$ is the residue of substituted diazotized aromatic or heteroaromatic amine compounds derived from the classes of aniline, 1-aminonaphthalene, 1-aminoanthraquinone, 4-aminoazobenzene, 2-aminothiazole, 2-aminobenzothiazole, 3-amino- 2,1-benzisothiazole, 2-aminothieno[2,3-d]thiazole, 5-aminoisothiazole, 5-aminopyrazole, 4-aminopyrazoloisothiazole, 2-amino-1,3,4-thiadiazole, 5-amino-1,2,4-thiadiazole, 5-amino-1,2,3-triazole, 2-amino-1,3,4-triazole, 2(5) aminoimidazole, 3-aminopyridine, 2(3) aminothiophene, 2(3) aminobenzo[b]thiophene, 2-aminothieno[3,2-b]thiophene, 3-aminothieno[2,3-c]isothiazole, 3-amino-7-benz-2,1-isothiazole, 3-aminobenzothienoisothiazole, 3-aminoisothiazole[3,4-d]pyrimidine, 5-amino-1,2,3-triazole, 3(4) aminophthalimide and 5(6) amino-1,2-benzisothiazolon-1,1-dioxide and Z is the residue of an electron rich coupling coupler residue selected from the group consisting of the following:

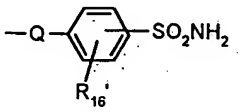


wherein $R_{17}$ is selected from the group consisting of hydrogen, 1-2 groups selected from $C_1$-$C_6$ alkyl, $C_1$-$C_6$

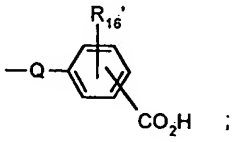
alkoxy, $C_1$-$C_6$ alkylthio, -O $C_2$-$C_6$ alkylene-OH, O $C_2$-$C_6$ alkylene- $C_1$-$C_6$ alkanoyloxy, $C_1$-$C_6$ alkylene-OH, $C_1$-$C_6$ alkylene- $C_1$-$C_6$ alkanoyloxy, halogen, carboxy, $C_1$-$C_6$ alkoxycarbonyl, trifluoromethyl, $NHCOR_{24}$ , $NHCO_2R_{24}$, $NHCON(R_{24})R_{25}$, and $NHSO_2R_{25}$, wherein $R_{24}$ is selected from the group consisting of hydrogen, $C_1$-$C_{10}$ alkyl, $C_3$-$C_8$ cycloalkyl or aryl, $R_{25}$ is selected from the group consisting of $C_1$-$C_{10}$ alkyl, $C_3$-$C_8$ cycloalkyl or aryl wherein each $C_1$-$C_{10}$ alkyl group in $R_{24}$ and $R_{25}$ may be further substituted with one or more groups selected from the group consisting of $C_3$-$C_8$ cycloalkyl, aryl, aryloxy, arylthio, $CO_2H$, $CO_2$ $C_1$-$C_6$ alkyl, cyano, hydroxy, succinimido, $C_1$-$C_6$ alkoxy,





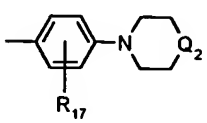


or



;

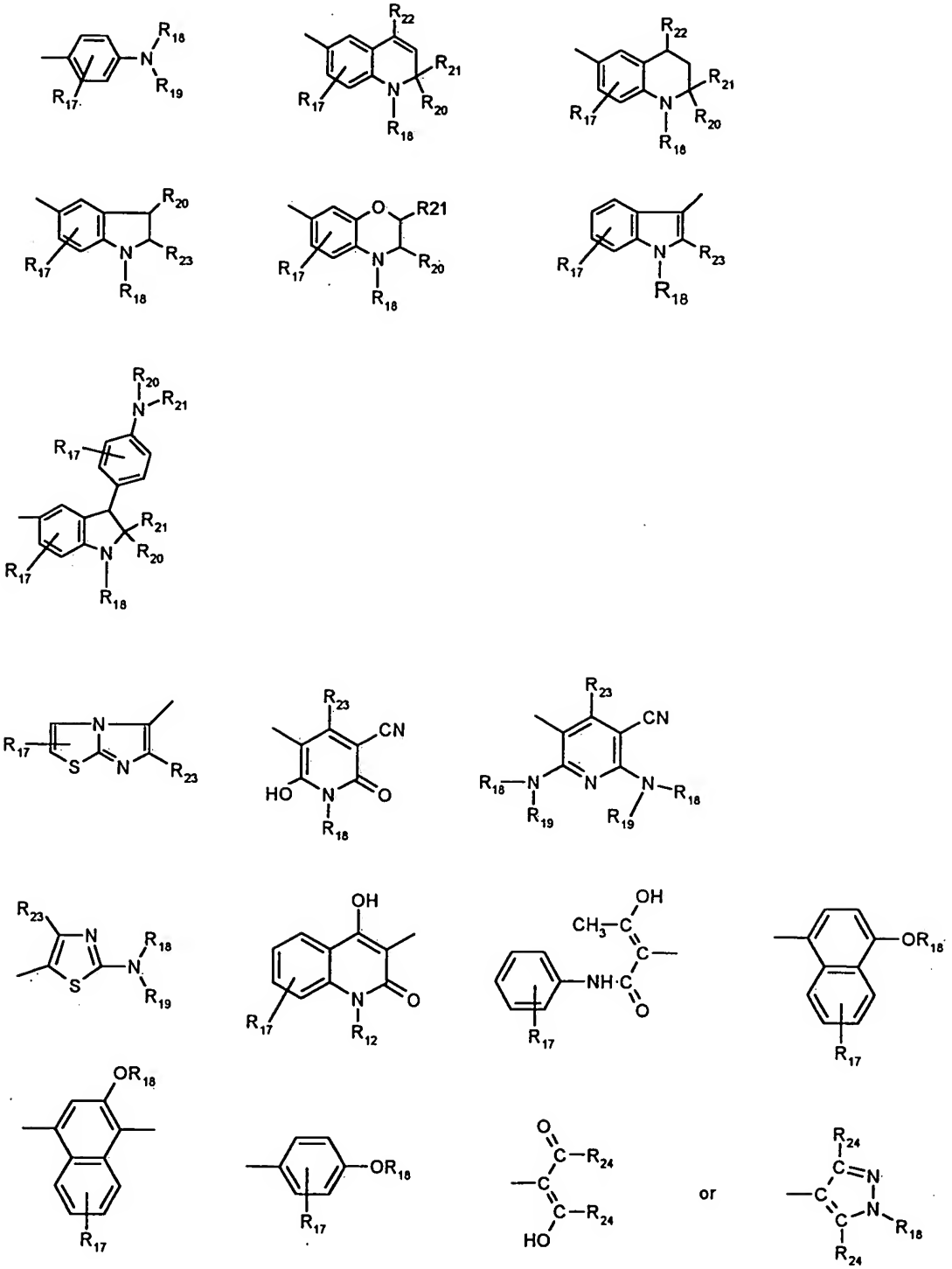
wherein $R_5'$, $R_{16}'$ and Q are as defined in claim 63; $R_{18}$ and $R_{19}$ are independently selected from the group consisting of hydrogen, unsubstituted $C_1$-$C_{10}$ alkyl, substituted $C_1$-$C_{10}$ alkyl, $C_3$-$C_8$ cycloalkyl, $C_3$-$C_8$ alkenyl, $C_3$-$C_8$ alkynyl and aryl or $R_{18}$ and $R_{19}$ may be combined with another element to which they are attached to form a radical Z having the formula



wherein $Q_2$ is selected from the group consisting of a covalent bond, -O-, -S-, $-SO_2-$, -CO-, $-CO_2-$, $-N-(C_1-C_6$ alkyl)-, $-N(CO\ C_1-C_6$ alkyl)-, $-N(SO_2\ C_1-C_6$ alkyl)-, -N(CO aryl)-, or-$N(SO_2$ aryl); $R_{20}$, $R_{21}$ and $R_{22}$ are independently selected from the group consisting of or $C_1-C_6$ alkyl; $R_{23}$ is selected from the group consisting of hydrogen, $C_1-C_6$ alkyl, $C_3-C_8$ cycloalkyl, heteroaryl or aryl.

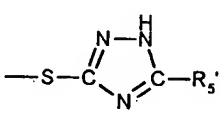
72. The diacidic azo and disazo compounds of claim 69 of the formulae $R_6-N=N-Z$ (VI) and $R_6-N=N-R_7-N=N-Z$ (VII), respectively, wherein one of $R_6$ and Z contains two carboxy ($-CO_2H$) acidic groups.

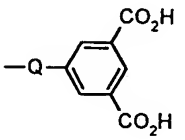
73. The diacidic azo and disazo compounds of claim 69 or 72 wherein $R_6$ is the residue of a diazotized substituted or unsubstituted diazotized aromatic or heteromatic amine compound derived from an amine selected from aniline, 1-aminonaphthalene, 1-aminoanthraquinone, 4-aminoazobenzene, 2-aminothiazole, 2-aminobenzothiazole, 3-amino- 2,1-benzisothiazole, 2-aminothieno[2,3-d]thiazole, 5-aminoisothiazole, 5-aminopyrazole, 4-aminopyrazoloisothiazole, 2-amino-1,3,4-thiadiazole, 5-amino-1,2,4-thiadiazole, 5-amino-1,2,3-triazole, 2-amino-1,3,4-triazole, 2(5) aminoimidazole, 3-aminopyridine, 2(3) aminothiophene, 2(3) aminobenzo[b]thiophene, 2-aminothieno[3,2-b]thiophene, 3-aminothieno[2,3-c]isothiazole, 3-amino-7-benz- 2,1-isothiazole, 3-aminobenzothienoisothiazole, 3-aminoisothiazole[3,4-d]pyrimidine, 5-amino- 1,2,3-triazole, 3(4) aminophthalimide and 5(6) amino-1,2-benzisothiazolon-1,1-dioxide and Z is the residue of an electron rich coupling component selected from the group consisting of the following:

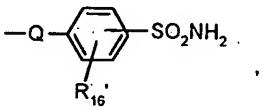


wherein $R_{17}$ is selected from the group consisting of hydrogen, 1-2 groups selected from $C_1$-$C_6$ alkyl, $C_1$-$C_6$

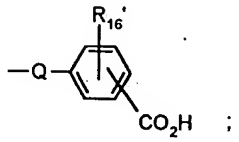
alkoxy, $C_1$-$C_6$ alkylthio, -O $C_2$-$C_6$ alkylene-OH, O $C_2$-$C_6$ alkylene- $C_1$-$C_6$ alkanoyloxy, $C_1$-$C_6$ alkylene-OH, $C_1$-$C_6$ alkylene- $C_1$-$C_6$ alkanoyloxy, halogen, carboxy, $C_1$-$C_6$ alkoxycarbonyl, trifluoromethyl, $NHCOR_{24}$ , $NHCO_2R_{24}$, $NHCON(R_{24})R_{25}$, and $NHSO_2R_{25}$, wherein $R_{24}$ is selected from the group consisting of hydrogen, $C_1$-$C_{10}$ alkyl, $C_3$-$C_8$ cycloalkyl or aryl, $R_{25}$ is selected from the group consisting of $C_1$-$C_{10}$ alkyl, $C_3$-$C_8$ cycloalkyl or aryl wherein each $C_1$-$C_{10}$ alkyl group in $R_{24}$ and $R_{25}$ may be further substituted with one or more groups selected from the group consisting of $C_3$-$C_8$ cycloalkyl, aryl, aryloxy, arylthio, $CO_2H$, $CO_2$ $C_1$-$C_6$ alkyl, cyano, hydroxy, succinimido, $C_1$-$C_6$ alkoxy,



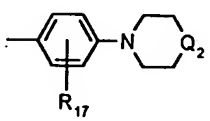




or



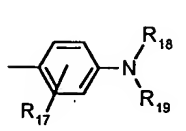
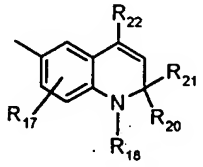
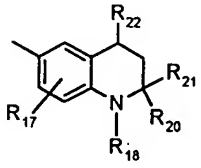
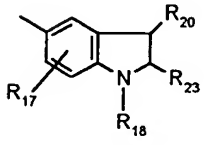
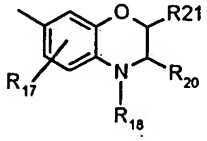
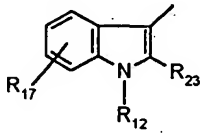
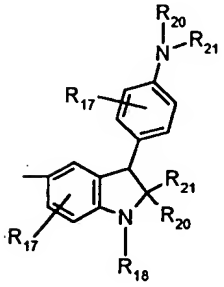

;

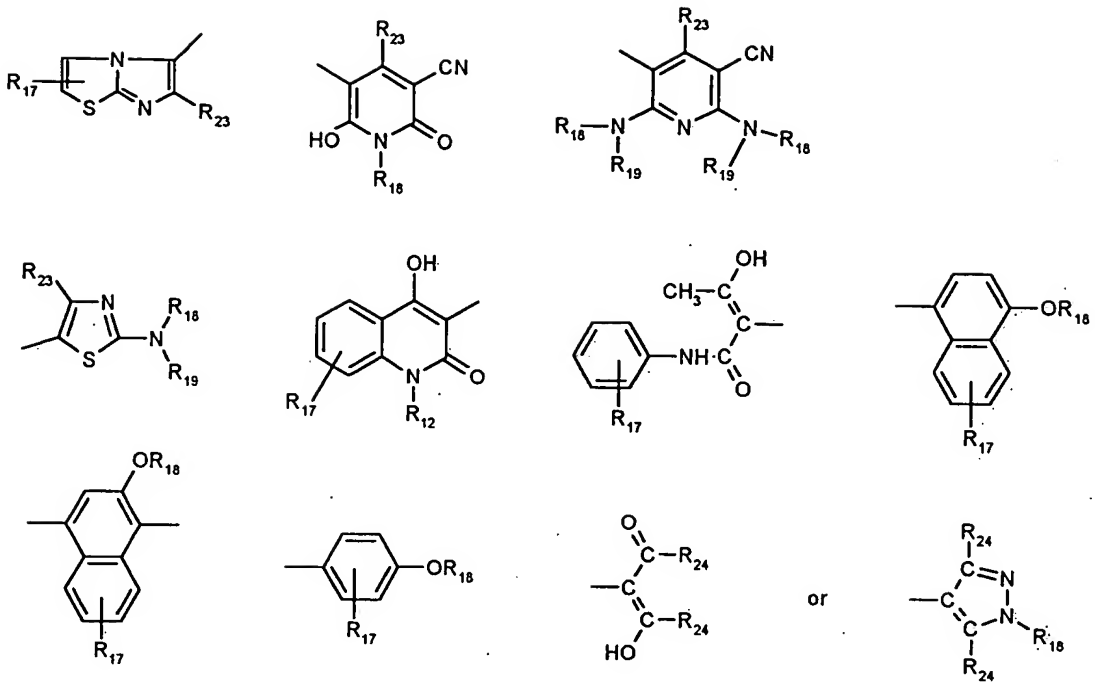
wherein $R_5$', $R_{16}$' and Q are as defined in claim 63; $R_{18}$ and $R_{19}$ are independently selected from the group consisting of hydrogen, unsubstituted $C_1$-$C_{10}$ alkyl, substituted $C_1$-$C_{10}$ alkyl, $C_3$-$C_8$ cycloalkyl, $C_3$-$C_8$ alkenyl, $C_3$-$C_8$ alkynyl and aryl or $R_{18}$ and $R_{19}$ may be combined with another element to which they are attached to form a radical Z having the formula



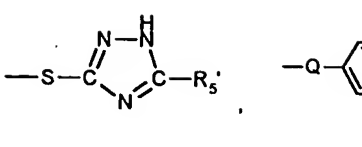
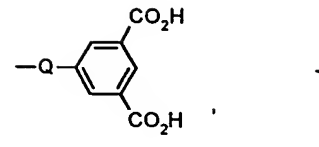
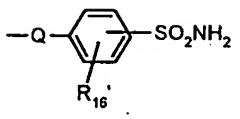
wherein $Q_2$ is selected from the group consisting of a covalent bond, -O-, -S-, $-SO_2-$, -CO-, $-CO_2-$, -N-($C_1$-$C_6$ alkyl)-, -N(CO $C_1$-$C_6$ alkyl)-, -N($SO_2$ $C_1$-$C_6$ alkyl)-, -N(CO aryl)-, or-N($SO_2$ aryl); $R_{20}$, $R_{21}$ and $R_{22}$ are independently selected from the group consisting of or $C_1$-$C_6$ alkyl; $R_{23}$ is selected from the group consisting of hydrogen, $C_1$-$C_6$ alkyl, $C_3$-$C_8$ cycloalkyl, heteroaryl or aryl.

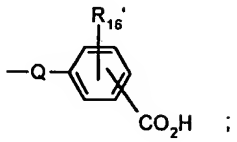
74. The diacidic azo and bisazo compounds of claim 72 wherein Z is an electron rich coupler selected from the group consisting of the following:

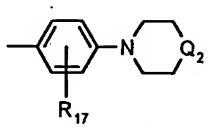


wherein $R_{17}$ is selected from the group consisting of hydrogen, 1-2 groups selected from $C_1$-$C_6$ alkyl, $C_1$-$C_6$ alkoxy, $C_1$-$C_6$ alkylthio, -O $C_2$-$C_6$ alkylene-OH, O $C_2$-$C_6$ alkylene- $C_1$-$C_6$ alkanoyloxy, $C_1$-$C_6$ alkylene-OH, $C_1$-$C_6$ alkylene- $C_1$-$C_6$ alkanoyloxy, halogen, carboxy, $C_1$-$C_6$ alkoxycarbonyl, trifluoromethyl, $NHCOR_{24}$, $NHCO_2R_{24}$, $NHCON(R_{24})R_{25}$, and $NHSO_2R_{25}$, wherein $R_{24}$ is selected from the group consisting of hydrogen, $C_1$-$C_{10}$ alkyl, $C_3$-$C_8$ cycloalkyl or aryl, $R_{25}$ is selected from the group consisting of $C_1$-$C_{10}$ alkyl, $C_3$-$C_8$ cycloalkyl or aryl wherein each $C_1$-$C_{10}$ alkyl group in $R_{24}$ and $R_{25}$ may be further substituted with one or more groups selected from the group consisting of $C_3$-$C_8$ cycloalkyl, aryl, aryloxy, arylthio, $CO_2H$, $CO_2$ $C_1$-$C_6$ alkyl, cyano, hydroxy, succinimido, $C_1$-$C_6$ alkoxy,

or 

wherein $R_5'$, $R_{16}'$ and Q are as defined in claim 63; $R_{18}$ and $R_{19}$ are independently selected from the group consisting of hydrogen, unsubstituted $C_1$-$C_{10}$ alkyl, substituted $C_1$-$C_{10}$ alkyl, $C_3$-$C_8$ cycloalkyl, $C_3$-$C_8$ alkenyl, $C_3$-$C_8$ alkynyl and aryl or $R_{18}$ and $R_{19}$ may be combined with another element to which they are attached to form a radical Z having the formula



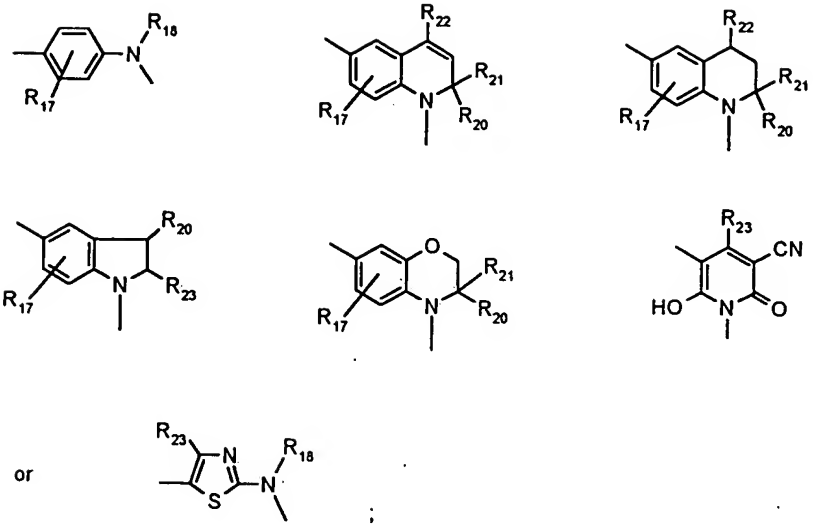
wherein $Q_2$ is selected from the group consisting of a covalent bond, -O-, -S-, $-SO_2-$, -CO-, $-CO_2-$, -N-($C_1$-$C_6$ alkyl)-, -N(CO $C_1$-$C_6$ alkyl)-, -N($SO_2$ $C_1$-$C_6$ alkyl)-, -N(CO aryl)-, or-N($SO_2$ aryl); $R_{20}$, $R_{21}$ and $R_{22}$ are independently selected from the group consisting of or $C_1$-$C_6$ alkyl; $R_{23}$ is selected from the group consisting of hydrogen, $C_1$-$C_6$ alkyl, $C_3$-$C_8$ cycloalkyl, heteroaryl or aryl.

75. The diacidic bisazo compounds having the formula $R_6$-N=N-$Y_1$-N=N-$R_6$ (VIIa) wherein $R_6$ is the residue of a substituted diazotized aromatic or heteroaromatic amine compound derived from the classes of aniline, 1-aminonaphthalene, 1-aminoanthraquinone, 4-aminoazobenzene, 2-aminothiazole, 2-aminobenzothiazole, 3-amino-2,1-benzisothiazole, 2-aminothieno[2,3-d]thiazole,

5-aminoisothiazole, 5-aminopyrazole, 4-aminopyrazoloisothiazole, 2-amino-1,3,4-thiadiazole, 5-amino-1,2,4-thiadiazole, 5-amino-1,2,3-triazole, 2-amino-1,3,4-triazole, 2(5) aminoimidazole, 3-aminopyridine, 2(3) aminothiophene, 2(3) aminobenzo[b]thiophene, 2-aminothieno[3,2-b]thiophene, 3-aminothieno[2,3-c]isothiazole, 3-amino-7-benz- 2,1-isothiazole, 3-aminobenzothienoisothiazole, 3-aminoisothiazole[3,4-d]pyrimidine, 5-amino- 1,2,3-triazole, 3(4) aminophthalimide and 5(6) amino-1,2-benzisothiazolon-1,1-dioxide and $Y_1$ is the residue of a bis coupling component selected from the group consisting of the classes of anilines, 1,2-dihydroquinolines, 1,2,3,4-tetrahydroquinolines, benzomorpholines (3,4-dihydro-2H-1,4-benzoxazines), 3-cyano-6-hydroxy-2-pyridones, 2,6-diaminopyridines, 2,3-dihydroindoles, naphthylamines, 2-aminothiazoles, or a combination of these, with the provision that each $R_6$ group contain one acidic group selected from the group consisting of $-CO_2H$, -SH, -OH attached to an aromatic ring, -NHCONH-, $-SO_2NHCO-$, $-SO_2NHSO_2-$, 1 (H)-1,2,4-triazol-3-yl-, imidazolyl, benzimidazoyl, pyrazolyl and $-SO_2H$ attached to aromatic ring.

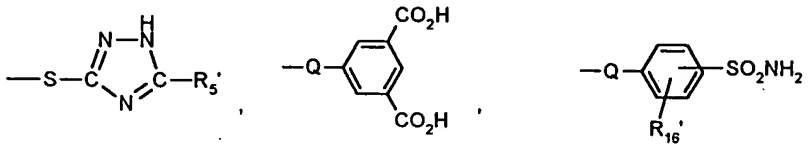
76. The bis-azo compounds of claim 75 wherein each $R_6$ group contains one carboxy ($-CO_2H$) group.

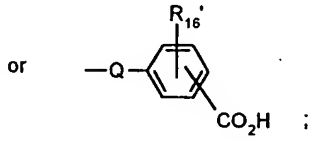
77. The bis-azo compounds of claim 75 wherein $Y_1$ has the formula $Z_1-L_1-Z_2$ wherein $Z_1$ and $Z_2$ are independently selected from the group consisting of:



wherein $L_1$ is bonded to the nitrogen atom of $Z_1$ and $Z_2$; wherein $L_1$ is selected from the group consisting of $C_2$-$C_{12}$ alkylene, $C_3$-$C_8$ cycloalkylene, arylene, $C_1$-$C_4$ alkylene-$C_3$-$C_8$ cycloalkylene- $C_1$-$C_4$ alkylene, $C_1$-$C_4$ alkylene-arylene-$C_1$-$C_4$ alkylene, $C_2$-$C_4$ alkylene-O-arylene-O- $C_2$-$C_4$ alkylene, ($C_2$-$C_4$ alkylene O)$_{1-3}$ $C_2$-$C_4$ alkylene, $C_2$-$C_4$ alkylene- S- $C_2$-$C_4$ alkylene, $C_2$-$C_4$ alkylene-$SO_2$- $C_2$-$C_4$ alkylene, $C_2$-$C_4$ alkylene-N($SO_2$ $C_1$-$C_6$ alkyl)- $C_2$-$C_4$ alkylene, $C_2$-$C_4$ alkylene-N($SO_2$ aryl)- $C_2$-$C_4$- alkylene, $C_2$-$C_4$ alkylene-$OCO_2$- $C_2$-$C_4$ alkylene, $C_2$-$C_4$ alkylene- $O_2C$-arylene-$CO_2$- $C_2$-$C_4$ alkylene, $C_2$-$C_4$ alkylene-$O_2C$- $C_1$-$C_{12}$ alkylene-$CO_2$- $C_2$-$C_4$ alkylene, $C_2$-$C_4$ alkylene-$O_2C$- $C_3$-$C_8$ cycloalkylene-$CO_2$- $C_2$-$C_4$ alkylene, $C_2$-$C_4$ alkylene-NHCO- $C_2$-$C_4$ alkylene and $C_2$-$C_4$ alkylene-$NHSO_2$-$C_2$-$C_4$ alkylene; $R_{17}$ is selected from the group consisting of hydrogen, 1-2 groups selected from $C_1$-$C_6$ alkyl, $C_1$-$C_6$ alkoxy, $C_1$-$C_6$ alkylthio, -O $C_2$-$C_6$ alkylene-OH, O $C_2$-$C_6$ alkylene- $C_1$-$C_6$ alkanoyloxy, $C_1$-$C_6$ alkylene-OH, $C_1$-$C_6$ alkylene- $C_1$-$C_6$ alkanoyloxy, halogen, carboxy, $C_1$-$C_6$ alkoxycarbonyl, trifluoromethyl, $NHCOR_{24}$ , $NHCO_2R_{24}$, $NHCON(R_{24})R_{25}$, and $NHSO_2R_{25}$, wherein $R_{24}$ is selected from the group consisting of hydrogen, $C_1$-$C_{10}$ alkyl, $C_3$-$C_8$ cycloalkyl or aryl, $R_{25}$ is selected from the group consisting of $C_1$-$C_{10}$

alkyl, $C_3$-$C_8$ cycloalkyl or aryl wherein each $C_1$-$C_{10}$ alkyl group in $R_{24}$ and $R_{25}$ may be further substituted with one or more groups selected from the group consisting of $C_3$-$C_8$ cycloalkyl, aryl, aryloxy, arylthio, $CO_2H$, $CO_2$ $C_1$-$C_6$ alkyl, cyano, hydroxy, succinimido, $C_1$-$C_6$ alkoxy,

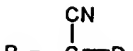




wherein $R_5$', $R_{16}$' and Q are as defined in clain 63; $R_{18}$ is selected from the group consisting of hydrogen, a group selected from the group consisting of unsubstituted $C_1$-$C_{10}$ alkyl, substituted $C_1$-$C_{10}$ alkyl, $C_3$-$C_8$ cycloalkyl, $C_3$-$C_8$ alkenyl, $C_3$-$C_8$ alkynyl and aryl; $R_{20}$, $R_{21}$ and $R_{22}$ are independently selected from the group consisting of or $C_1$-$C_6$ alkyl; $R_{23}$ is selected from the group consisting of hydrogen, $C_1$-$C_6$ alkyl, $C_3$-$C_8$ cycloalkyl, heteroaryl or aryl.

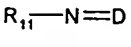
78. The diacidic methine, arylidene, polymethine, azamethine, 3-aryl-2,5-dioxypyrroline, 3-aryl-5-dicyanomethylene -2-oxypyrroline and aryl isoindoline corresponding to formulae VIII, VIIIa, VIIIb, IX, X, XI and XII, respectively:

VIII

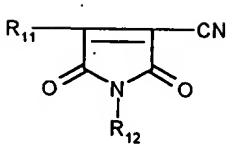


VIII a

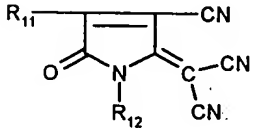
VIII b



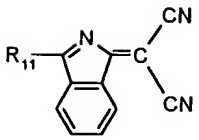
IX



X



XI

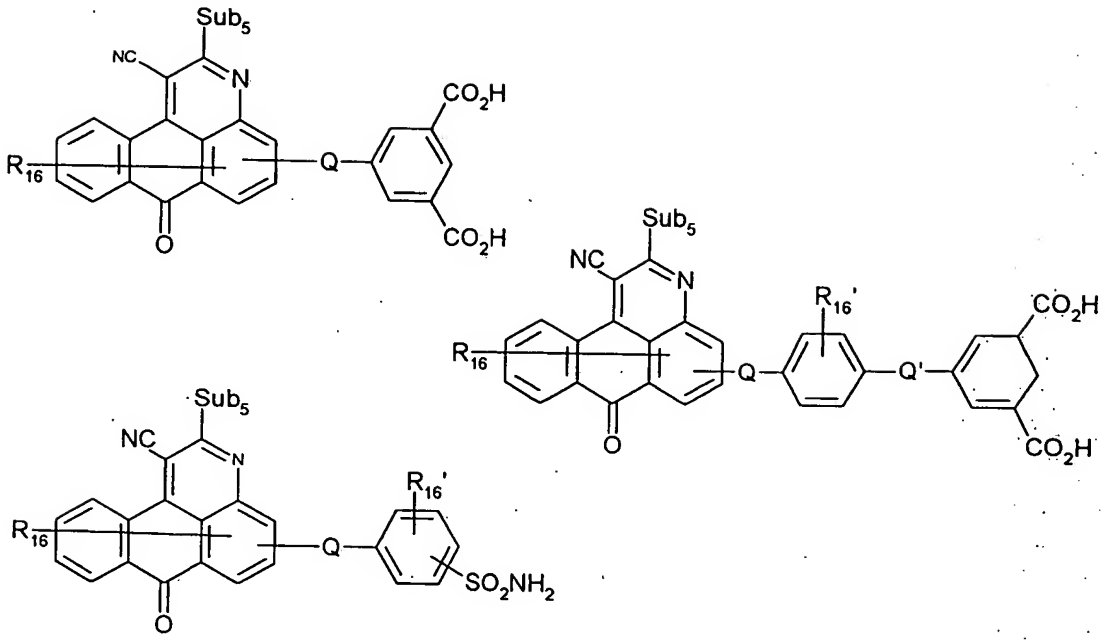


XII

wherein $R_{11}$ is the residue of an aniline, 1-naphthylamine, 1,2-dihydroquinoline, 1,2,3,4-tetrahydroquinoline, 1,3,3-trimethyl- 2-methyleneindole, 1,3-dihydro-2-methylene-1,1,3-trimethyl-2H-benz[e]indole, imidazo [2,1-b] thiazole, benzomorpholine (3,4-dihydro-2H-1,4,benzoxazine), indole, 2,3-dihydroindole, 2-aminothiazole, julolidine (2,3,6,7-tetrahydro-1H, 5H- benz [ij] quinolizine, 1-oxajulolidine, 4H-pyrrolo [3,2,1-ij]-quinoline, phenol, naphthol, thiophenol, pyrrole, pyrazole, furan, thiophene, carbazole, phenothiazine or phenoxazine compound; $R_{12}$ is selected from the group consisting of hydrogen, $C_1$-$C_{10}$ alkyl, $C_3$-$C_8$ alkenyl, $C_3$-$C_8$-alkynyl, $C_3$-$C_8$ cycloalkyl, aryl, $-(CH_2CH_2O)_{1-3}$ $R_{13}$ and $C_1$-$C_4$ alkylene- $C_3$-$C_8$ cycloalkylene, wherein the $C_1$-$C_6$ alkyl groups may be substituted by at least one group selected from the group consisting of carboxy, $C_1$-$C_6$ carbalkoxy, $C_1$-$C_6$ alkanoyloxy, cyano, hydroxy, chlorine, fluorine, $C_1$-$C_6$ alkoxy, $C_3$-$C_8$ cycloalkyl or aryl; $R_{13}$ is selected from the group consisting of hydrogen, $C_1$-$C_6$ alkoxy or $C_1$-$C_6$ alkanoyloxy; wherein D is the residue of an active

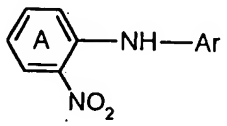
methylene compound selected from the group consisting of malononitrile, α-cyanoacetic acid esters, malonic acid esters, α-cyanacetic acid amides, α-$C_1$-$C_6$ alkylsulfonylacetonitriles, α-arylsulfonylacetonitriles, α-$C_1$-$C_6$ alkanoylacetonitriles, α-aroylacetonitriles, α-heteroarylacetonitriles, bis(heteroaryl)methanes, 1,3-indanediones, 2-furanones, benzo-2-furanones, naphtho-2-furanones, 2-indolones, 3-cyano-1,6-dihydro-4-methyl-2,6-dioxy (2H)-pyridines, benzo (b) thieno-3-ylidene propane dinitrile-5,5-dioxides, 1,3-bis (dicyanomethylene) indanes, barbituric acid, 5-pyrazolones, dimedone, 3-oxo-2,3-dihydro-1-benzothiophene-1,1-dioxides or aryl-$C(CH_3)C=C(CN)_2$, with the proviso that two acidic functional groups selected from the group consisting of $-CO_2H$, -SH, -OH attached to aromatic ring, $-CONHCO-$, $-SO_2NHCO-$, $-SO_2NHSO_2-$, 1(H) -1,2,4,-triazol-3-yl, imidazolyl, benzimidazolyl, pyrazolyl and $SO_2H$ attached to aromatic ring be present or one diacidic sulfamoyl ($-SO_2NH_2$) be present.

79. The diacidic anthrapyridine compounds having the structures:



wherein $Sub_5$ in a substituent selected from the group consisting of -N ($C_1$-$C_{10}$ alkyl)$_2$, -N ($C_1$-$C_{10}$ alkyl) aryl, -N ($C_1$-$C_{10}$ alkyl) $C_3$-$C_8$ cycloalkyl, morpholino and piperidino; Q and Q' are selected from the group consisting of -NH-, -O-, -S- and -$SO_2$-, $R_{16}$' is selected from the group consisting of hydrogen, $C_1$-$C_6$ alkyl, halogen and $C_1$-$C_6$ alkoxy.

80. The nitroarylamine compounds having the structure:

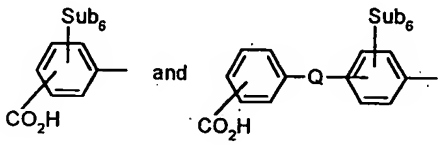


wherein ring A may be substituted with one or more groups selected from the group consisting of halogen, -$SO_2$N($C_1$-$C_6$ alkyl)$_2$, -CON ($C_1$-$C_6$ alkyl)$_2$, $SO_2$ $C_1$-$C_6$ alkyl, $SO_2$ aryl, $C_1$-$C_6$ alkyl, $C_1$-$C_6$ alkoxy, carboxy, and nitro; Ar is phthalimid-3 (or 4)-yl, phenyl, or 2-thienyl, or these substituted with one or more groups selected from the

group consisting of halogen, $C_1$-$C_6$ alkyl, $C_1$-$C_6$ alkoxy, 1(H)-1,2,4,-triazolyl-3-ylthio, carboxy, or hydroxy, with the provision that two acidic groups be present.

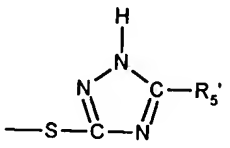
81. The nitroarylamine compounds of claim 80 wherein two carboxy groups are present on Ar or ring A or one carboxy is present on each of Ar and ring A.

82. The diacidic compounds of claim 72, having the formula $R_6$-N=N-Z, wherein $R_6$ is selected from the group consisting of




wherein $Sub_6$ is selected from the group consisting of hydrogen, one to four groups selected from $C_1$-$C_{10}$ alkyl, $C_1$-$C_6$ alkoxy, $C_3$-$C_8$ cycloalkyl, halogen, , $C_1$-$C_6$ alkoxycarbonyl, formyl, $C_1$-$C_6$ alkanoyl, $C_1$-$C_6$ alkanoyloxy, dicyanovinyl, $C_3$- $C_8$-cycloalkanoyl, thiocyano, trifluroacetyl, cyano, carbamoyl, -CONH $C_1$-$C_6$ alkyl, CONHaryl, CON($C_1$-$C_6$ alkyl)$_2$, $SO_2N$($C_1$-$C_6$ alkyl)$_2$, CONH $C_3$-$C_8$ cycloalkyl, aryl, aroyl, -N($C_1$-$C_6$ alkyl)$SO_2$ $C_1$-$C_6$ alkyl, NHCO $C_1$-$C_6$ alkyl, NHCO $C_3$-$C_8$ cycloalkyl, NHCOaryl, $NHCO_2$ $C_1$-$C_6$ alkyl, NHCONH $C_1$-$C_6$ alkyl, NHCONHaryl, N($C_1$-$C_6$ alkyl)aryl, arylazo, heteroaryl, aryloxy, arylthio, $C_3$-$C_8$ cycloalkoxy, heteroarylazo, heteroarylthio, arylsulfonyl, tricyanovinyl, aryloxysulfonyl, $C_1$-$C_6$ alkylsulfonyl, trifluoromethyl, fluorosulfonyl, trifluoromethylsulfonyl, thiocyano, nitro and CH=D, wherein D is the residue of an active methylene compound selected from the group consisting of malononitrile, α-cyanoacetic acid esters, malonic acid esters, α-cyanacetic acid amides, α-$C_1$-$C_6$ alkylsulfonylacetonitriles, α-arylsulfonylacetonitriles, α-$C_1$-$C_6$ alkanoylacetonitriles, α-aroylacetonitriles, α-heteroarylacetonitriles, bis(heteroaryl)methanes, 1,3-

indanediones, 2-furanones, benzo-2-furanones, naphtho-2-furanones, 2-indolones, 3-cyano-1,6-dihydro-4-methyl-2,6-dioxy (2H)-pyridines, benzo (b) thieno-3-ylidene propane dinitrile-5,5-dioxides, 1,3-bis (dicyanomethylene) indanes, barbituric acid, 5-pyrazolones, dimedone, 3-oxo-2,3-dihydro-1-benzothiophene-1,1-dioxides and aryl-$C(CH_3)C=C(CN)_2$; with the provision that one acidic group selected from the group consisting of carboxy,

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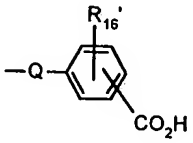
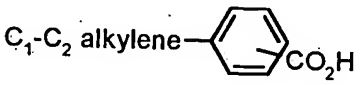
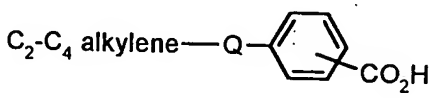
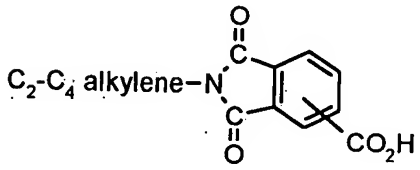



be present on either $R_{17}$ , $R_{18}$, $R_{19}$ or $R_{24}$; Q is selected from the group consisting of -O- , -S, and $-SO_2-$.

83. The compounds of claim 82 wherein $R_{18}$ is selected from the group consisting of $C_1-C_{10}$ alkylene-$CO_2H$,

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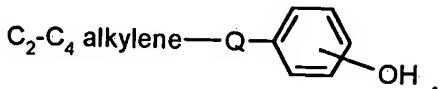
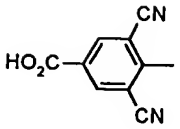



84. The diacidic compounds of claim 82 wherein $R_6$ is selected from the group consisting of

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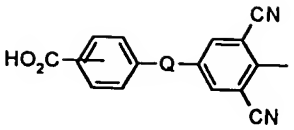
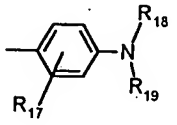
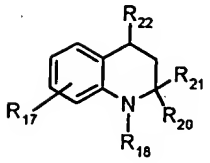



and Z is selected from

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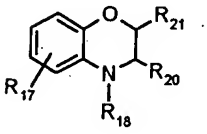
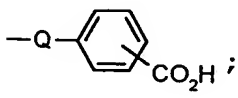
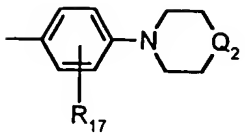


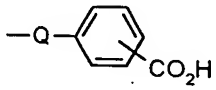

wherein $R_{17}$ is selected from the group consisting of hydrogen, 1-2 groups selected from $C_1$-$C_6$ alkyl, $C_1$-$C_6$ alkoxy, halogen, $NHCOR_{24}$, $NHCO_2R_{24}$ and $NHCONHR_{24}$, wherein $R_{24}$ is selected from the group consisting of hydrogen, $C_1$-$C_{10}$ alkyl, $C_3$-$C_8$ cycloalkyl and aryl; wherein each $C_1$-$C_{10}$ alkyl group in $R_{24}$ may be further substituted with one or more groups selected from the group consisting of $C_3$-$C_8$ cycloalkyl, carboxy, aryl, aryloxy, arythio, $CO_2$ $C_1$-$C_6$ alkyl, cyano, hydroxy, succinimido, $C_1$-$C_6$ alkyoxy and



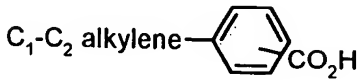

; $R_{18}$ and $R_{19}$ are independently selected from the group consisting of hydrogen, unsubstituted $C_1$-$C_{10}$ alkyl, substituted $C_1$-$C_{10}$ alkyl, $C_3$-$C_8$ alkyl, $C_3$-$C_8$ alkenyl and aryl or $R_{18}$ and $R_{19}$ may be combined with another element to which they are attached to from a radical

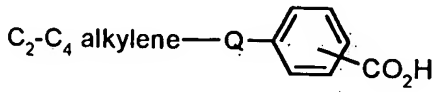


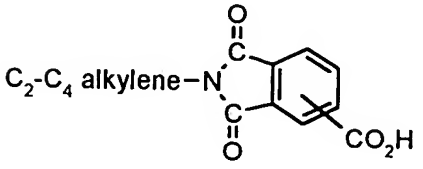
wherein $Q_2$ is selected from the group consisting of -O-, -S-, $-SO_2$, -CO-, $-CO_2$, -N ($COC_1$ -$C_6$ alkyl)-, -N ($SO_2$ $C_1$ -$C_6$ alkyl)-, -N (COaryl)-, and -N ($SO_2$ aryl)-; $R_{20}$, $R_{21}$, and $R_{22}$ are independently selected from the group consisting of or $C_1$-$C_6$ alkyl; with the provision that either $R_{17}$ contain one acidic group selected from the group consisting of carboxy and



with the groups $R_{18}$ and $R_{19}$ being void of acidic groups or $R_{17}$ may be void of acidic groups and $R_{18}$ be selected from the group consisting of $C_1$-$C_{10}$ alkylene -$CO_2$H,







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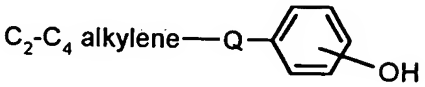
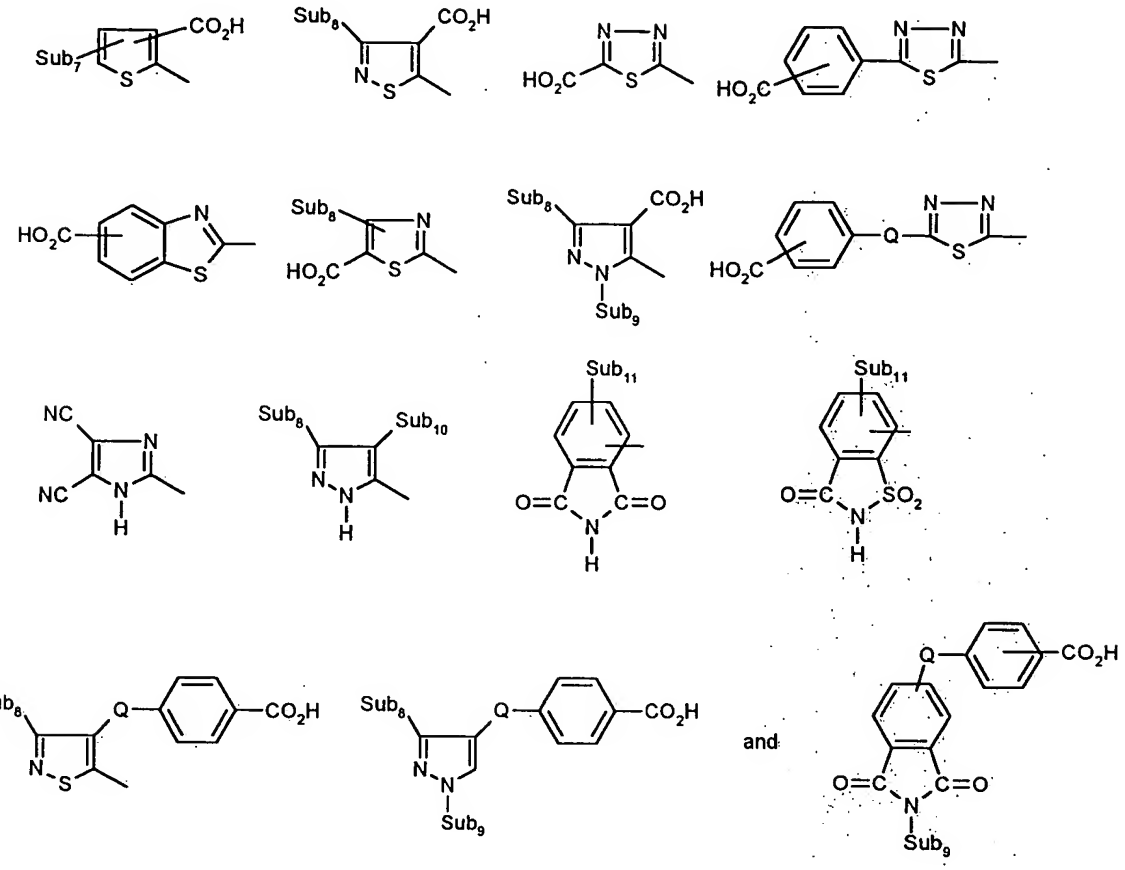


wherein Q is selected from the group consisting of - O -, - S -, and - $SO_2$ -; with the final provision that only two carboxy groups be present.

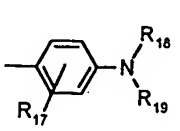
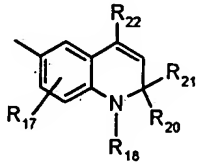
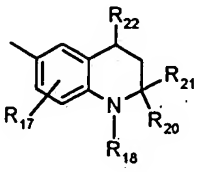
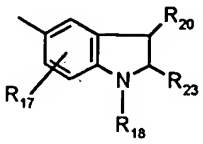
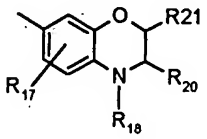
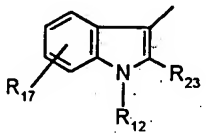
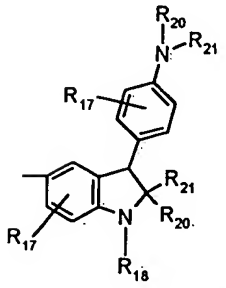
85. The diacidic compounds of claim 61 having the formula $R_6$-N=N-Z, wherein $R_6$ is the residue of a

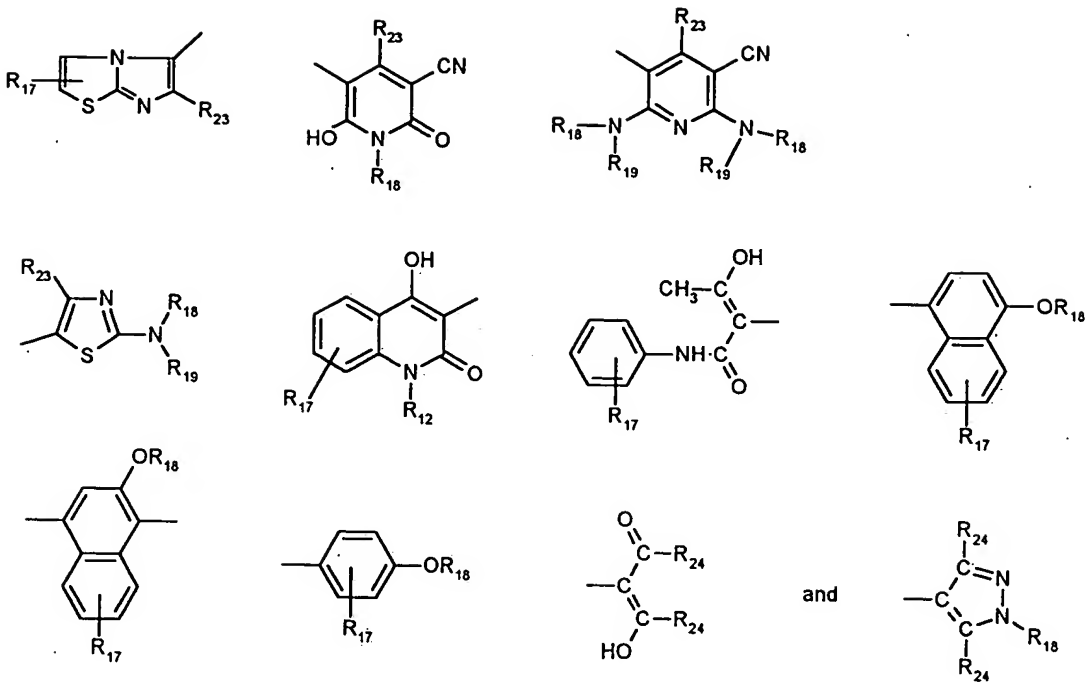
substituted heterocyclic diazotized amine and selected from the group consisting of



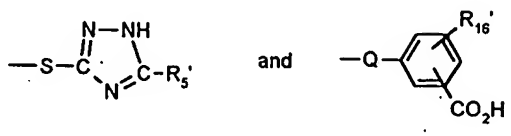

wherein $Sub_7$ is one or more substituent selected from the group consisting of hydrogen, halogen, $C_1$-$C_6$ alkyl, aryl, heteroaryl, $C_1$-$C_6$ alkanoyl, CONH $C_1$-$C_6$ alkyl, $SO_2$ $C_1$-$C_6$ alkyl, $SO_2$ aryl, $C_1$-$C_6$ alkoxycarbonyl, aroyl, cyano, formyl and nitro; $Sub_8$ is selected from the group consisting of hydrogen, halogen, $C_1$-$C_6$ alkyl, aryl and heteroaryl; $Sub_9$ is selected from the group consisting of $C_1$-$C_6$ alkyl $C_3$-$C_8$ cycloalkyl, $C_3$-$C_8$ alkenyl, and aryl; $Sub_{10}$ is selected from the group consisting of cyano, nitro, $C_1$-$C_6$ alkylsulfonyl, arythio, arylsulfonyl and $C_1$-$C_6$ alkoxycarbonyl; $Sub_{11}$ is hydrogen one or more substituents selected from the group consisting of $C_1$-$C_6$ alkyl, cyano, nitro, halogen, arylthio,

heteroarylthio, arylsulfonyl, aryloxy and $C_1$-$C_6$ alkylsulfonyl; Q is selected from the group consisting of -O-, -S- and $-SO_2-$; wherein Z is a coupling component selected from the group consisting of

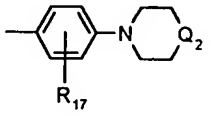


wherein $R_{17}$ is selected from the group consisting of hydrogen, 1-2 groups selected from $C_1$-$C_6$ alkyl, $C_1$-$C_6$ alkoxy, $C_1$-$C_6$ alkylthio, -O $C_2$-$C_6$ alkylene-OH, O $C_2$-$C_6$ alkylene- $C_1$-$C_6$ alkanoyloxy, $C_1$-$C_6$ alkylene-OH, $C_1$-$C_6$ alkylene- $C_1$-$C_6$ alkanoyloxy, halogen, $C_1$-$C_6$ alkoxycarbonyl, trifluoromethyl, $NHCOR_{24}$, $NHCO_2R_{24}$, and $NHCONHR_{24}$, wherein $R_{24}$ is selected from the group consisting of hydrogen, $C_1$-$C_{10}$ alkyl, $C_3$-$C_8$ cycloalkyl and aryl; wherein each $C_1$-$C_{10}$ alkyl group in $R_{24}$ may be further substituted with one or more groups selected from the group consisting of $C_3$-$C_8$ cycloalkyl, aryl, aryloxy, arylthio, $CO_2$ $C_1$-$C_6$ alkyl, cyano, hydroxy, succinimido, $C_1$-$C_6$ alkoxy,

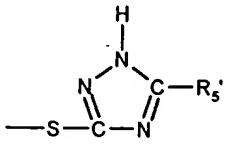


;

wherein $R_5'$ is selected from the group consisting of hydrogen, $C_1$-$C_6$ alkyl and aryl; $R_{16}'$ is selected from the group consisting of hydrogen, one or two groups selected from $C_1$-$C_6$ alkyl, halogen and $C_1$-$C_6$ alkoxy; $R_{18}$ and $R_{19}$ are independently selected from the group consisting of hydrogen, unsubstituted $C_1$-$C_{10}$ alkyl, substituted $C_1$-$C_{10}$ alkyl, $C_3$-$C_8$ cycloalkyl, $C_3$-$C_8$ alkenyl, $C_3$-$C_8$ alkynyl and aryl or $R_{18}$ and $R_{19}$ may be combined with another element to which they are attached to form a radical Z having the formula



wherein $Q_2$ is selected from the group consisting of a covalent bond, -O-, -S-, $-SO_2-$, -CO-, $-CO_2-$, $-N-(C_1-C_6$ alkyl)-, $-N(CO\ C_1-C_6$ alkyl)-, $-N(SO_2\ C_1-C_6$ alkyl)-, -N(CO aryl)-, or-$N(SO_2$ aryl); $R_{20}$, $R_{21}$ and $R_{22}$ are independently selected from the group consisting of or $C_1$-$C_6$ alkyl; $R_{23}$ is selected from the group consisting of hydrogen, $C_1$-$C_6$ alkyl, $C_3$-$C_8$ cycloalkyl, heteroaryl or aryl; with the provision that one acidic group selected from the group consisting of carboxy,



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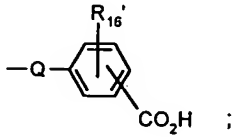
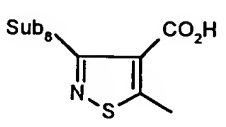
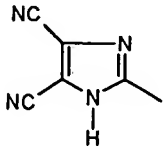
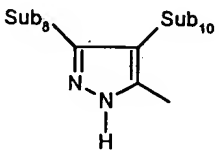
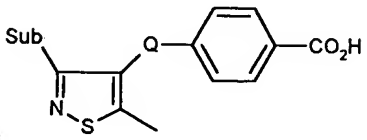


;

be present on either $R_{17}$ , $R_{18}$, $R_{19}$ or $R_{24}$; Q is selected from the group consisting of -O- , -S, and $-SO_2-$; with the provision that $R_6$ and Z each contain one acidic group.

86. The diacidic compounds of claim 85 having the formula $R_6$-N=N-Z, wherein $R_6$ is selected from the group consisting of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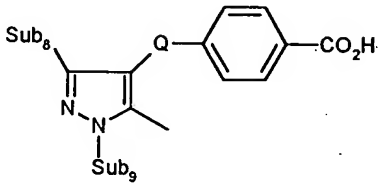
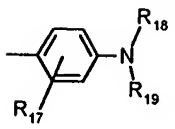
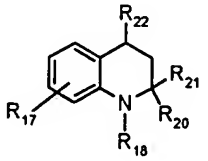


and Z is selected from the group consisting of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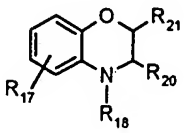
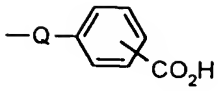
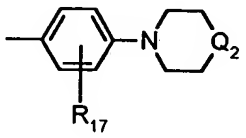
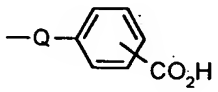


wherein $R_{17}$ is selected from the group consisting of hydrogen, 1-2 groups selected from $C_1$-$C_6$ alkyl, $C_1$-$C_6$ alkoxy, halogen, $NHCOR_{24}$, $NHCO_2R_{24}$ and $NHCONHR_{24}$, wherein $R_{24}$ is selected from the group consisting of hydrogen, $C_1$-$C_{10}$ alkyl, $C_3$-$C_8$ cycloalkyl and aryl; wherein each $C_1$-$C_{10}$ alkyl group in $R_{24}$ may be further substituted with one or more groups selected from the group consisting of $C_3$-$C_8$ cycloalkyl, carboxy, aryl, aryloxy, arythio, $CO_2$ $C_1$-$C_6$ alkyl, cyano, hydroxy, succinimido, $C_1$-$C_6$ alkyoxy and

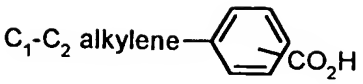

; $R_{18}$ and $R_{19}$ are independently selected from the group consisting of hydrogen, unsubstituted $C_1$-$C_{10}$ alkyl, substituted $C_1$-$C_{10}$ alkyl, $C_3$-$C_8$ alkyl, $C_3$-$C_8$ alkenyl and aryl or $R_{18}$ and $R_{19}$ may be combined with another element to which they are attached to from a radical

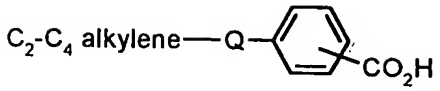


wherein $Q_2$ is selected from the group consisting of -O-, -S-, $-SO_2$, -CO-, $-CO_2$, -N ($COC_1$ -$C_6$ alkyl)-, -N ($SO_2$ $C_1$ -$C_6$ alkyl)-, -N (COaryl)-, and -N ($SO_2$ aryl)-; $R_{20}$, $R_{21}$, and $R_{22}$ are independently selected from the group consisting of or $C_1$-$C_6$ alkyl; with the provision that either $R_{17}$ contain one acidic group selected from the group consisting of carboxy and



with the groups $R_{18}$ and $R_{19}$ being void of acidic groups or $R_{17}$ may be void of acidic groups and $R_{18}$ be selected from the group consisting of $C_1$-$C_{10}$ alkylene $-CO_2H$,



,


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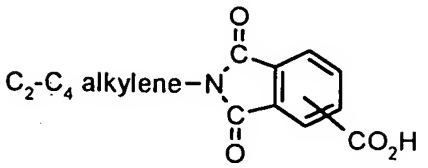
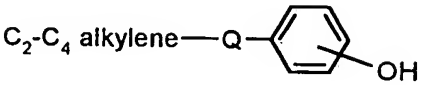
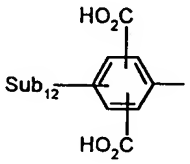


, and


;

wherein Q is selected from the group consisting of - O -, - S -, and - $SO_2$ -; with the final provision that only two carboxy groups be present.

87. The diacidic compounds of claim 71 having the formula $R_6$-N=N-Z, wherein $R_6$ is the residue of a diazotized aromatic amine and is selected from the group consisting of



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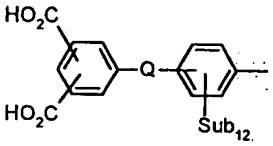
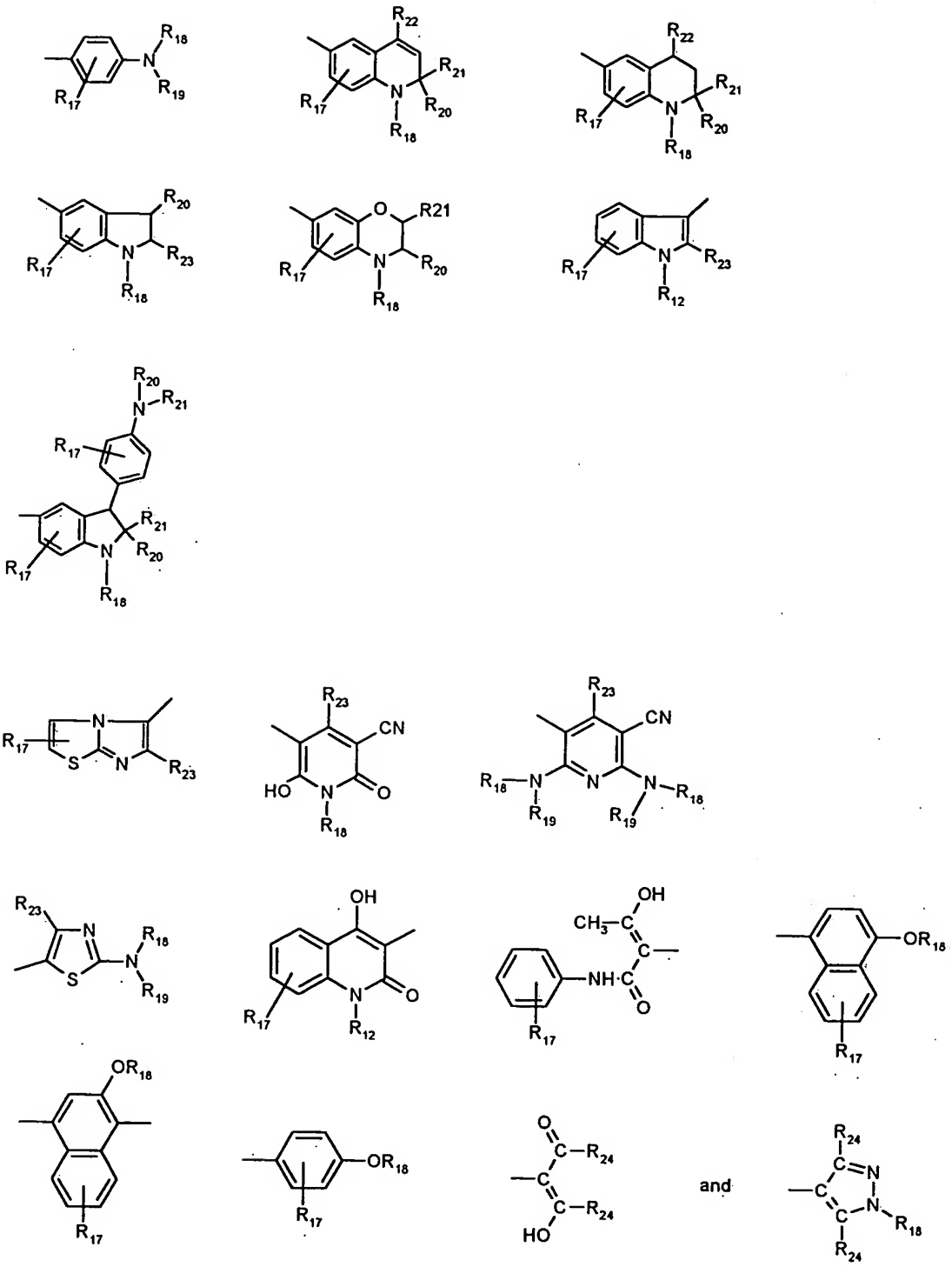
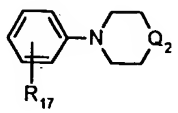



wherein $Sub_{12}$ is one or more groups selected from the group consisting of hydrogen, $C_1$-$C_6$ alkyl, cyano, nitro, $C_1$-$C_6$ alkylthio, $C_1$-$C_6$ alkylsulfonyl, aryl, heteroaryl, arylthio, arylsulfonyl, halogen, trifluoromethyl, alkanoyl, aroyl, formyl, NHCO aryl, NHCO $C_1$-$C_6$ alkyl, $C_1$-$C_6$ alkoxycarbonyl, $C_1$-$C_6$ alkoxy and - $SO_2N$ ($C_1$-$C_6$ alkyl)$_2$; Q is selected from the group consisting of -O-, -S-, -$SO_2$-, -CONH- and -$SO_2N$ ($C_1$-$C_6$ alkyl)-; Z is selected from the group consisting of



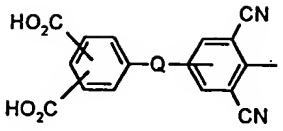
wherein $R_{17}$ is selected from the group consisting of hydrogen, 1-2 groups selected from $C_1$-$C_6$ alkyl, $C_1$-$C_6$

alkoxy, $C_1$-$C_6$ alkylthio, -O- $C_2$-$C_6$ alkylene - OH, O-$C_2$-$C_6$ alkylene- $C_1$-$C_6$ alkanoyloxy, $C_1$-$C_6$ alkylene-OH, $C_1$-$C_6$ alkylene - $C_1$-$C_6$ alkanoyloxy, halogen, $C_1$-$C_6$ alkoxycarbonyl, trifluoromethyl, $NHCOR_{24}$, $NHCO_2R_{24}$ and $NHCON(R_{24})$ $R_{25}$, wherein $R_{24}$ is selected from the group consisting of hydrogen, $C_1$-$C_{10}$ alkyl, $C_3$-$C_8$ cycloalkyl and aryl; $R_{25}$ is selected from the group consisting of $C_1$-$C_{10}$ alkyl, $C_3$-$C_8$ cycloalkyl and aryl; wherein each $C_1$-$C_{10}$ alkyl group in $R_{24}$ and $R_{25}$ may be further substituted with one or more groups selected from the group consisting of $C_3$-$C_8$ cycloalkyl, aryl, aryloxy, arylthio, $CO_2$ $C_1$-$C_6$ alkyl, cyano, hydroxy, succinimido and $C_1$-$C_6$ alkoxy; $R_{18}$ and $R_{19}$ are selected from the group consisting of hydrogen $C_1$-$C_{10}$ alkyl, substituted $C_1$-$C_{10}$ alkyl, $C_3$-$C_8$ cycloalkyl, $C_3$-$C_8$ alkenyl, $C_3$-$C_8$ alkynyl, and aryl; $R_{18}$ and $R_{19}$ in combination may be combined with another element to which they are attached to form a radical Z having the formula

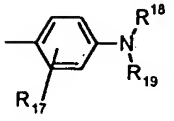
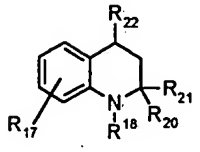
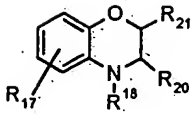



wherein $Q_2$ is selected from the group consisting of a covalent bond, -O-, $-SO_2-$, -S-, -CO-, $-CO_2-$, $-N(COC_1$-$C_6$ alkyl)-, $-N(SO_2$ $C_1$-$C_6$ alkyl)-, -N(CO aryl)-, $-N(SO_2$ aryl)-; $R_{20}$, $R_{21}$ and $R_{22}$ are independently selected from the group consisting of or $C_1$-$C_6$ alkyl; $R_{23}$ is selected from the group consisting of hydrogen, $C_1$-$C_6$ alkyl, $C_3$-$C_8$ cycloalkyl, heteroaryl or aryl; with the provision that no acidic groups be present on Z.

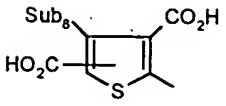
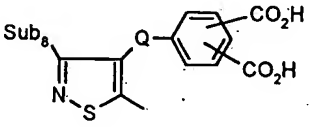
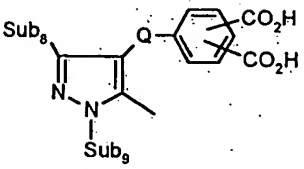
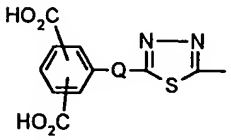
88. The diacidic compounds of claim 87 wherein $R_6$ has the structure



and Z is selected from



and


89. The diacidic compound of claim 72 wherein $R_6$ is residue of a diazotized heterocyclic amine and is selected from the group consisting of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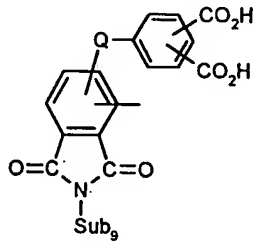
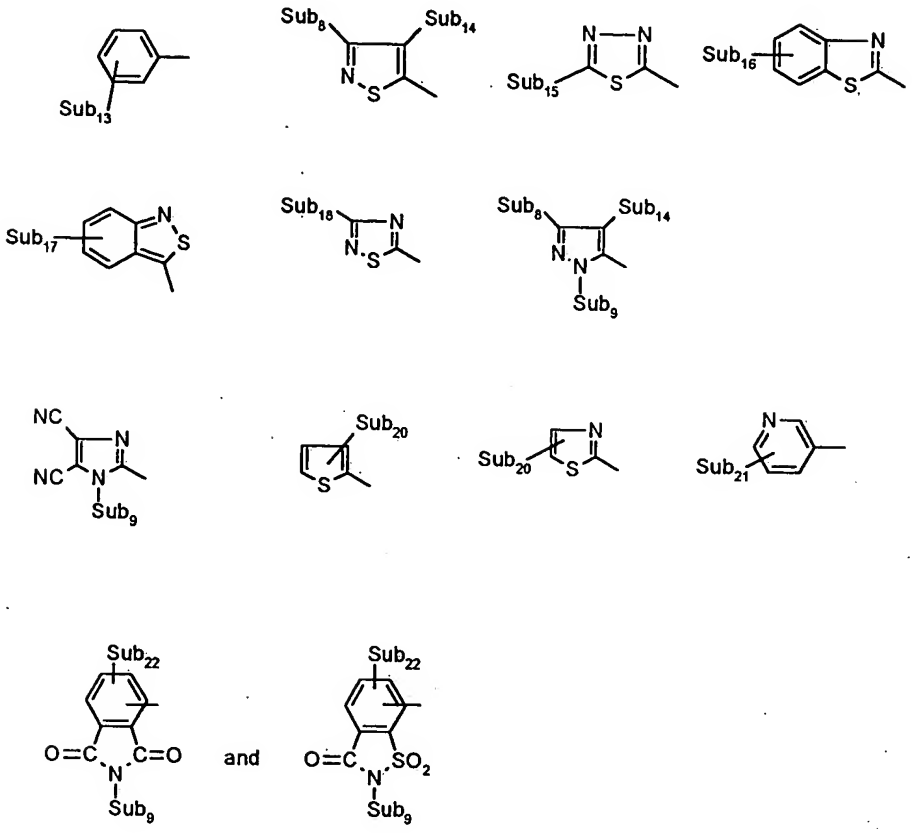


wherein $Sub_8$ is selected from the group consisting of hydrogen, $C_1$-$C_6$ alkyl, halogen, aryl and heteroaryl; $Sub_9$ is selected from the group consisting of $C_1$-$C_6$ alkyl $C_3$-$C_8$ cycloalkyl, $C_3$-$C_8$ alkenyl, and aryl; Q is selected from the group consisting of -O-, -S- and -$SO_2$-; with the provision that no acidic groups be present on Z.

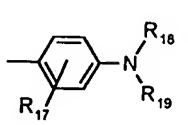
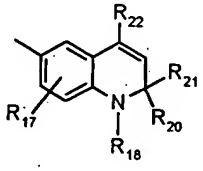
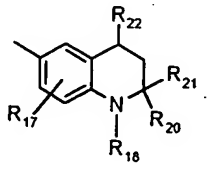
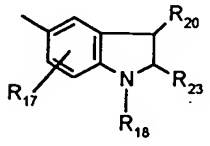
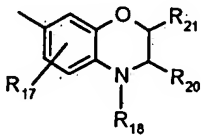
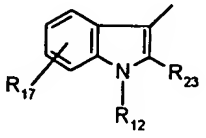
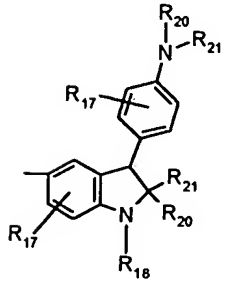
90. The diacidic compounds of claim 72 wherein $R_6$ is selected from the group consisting of

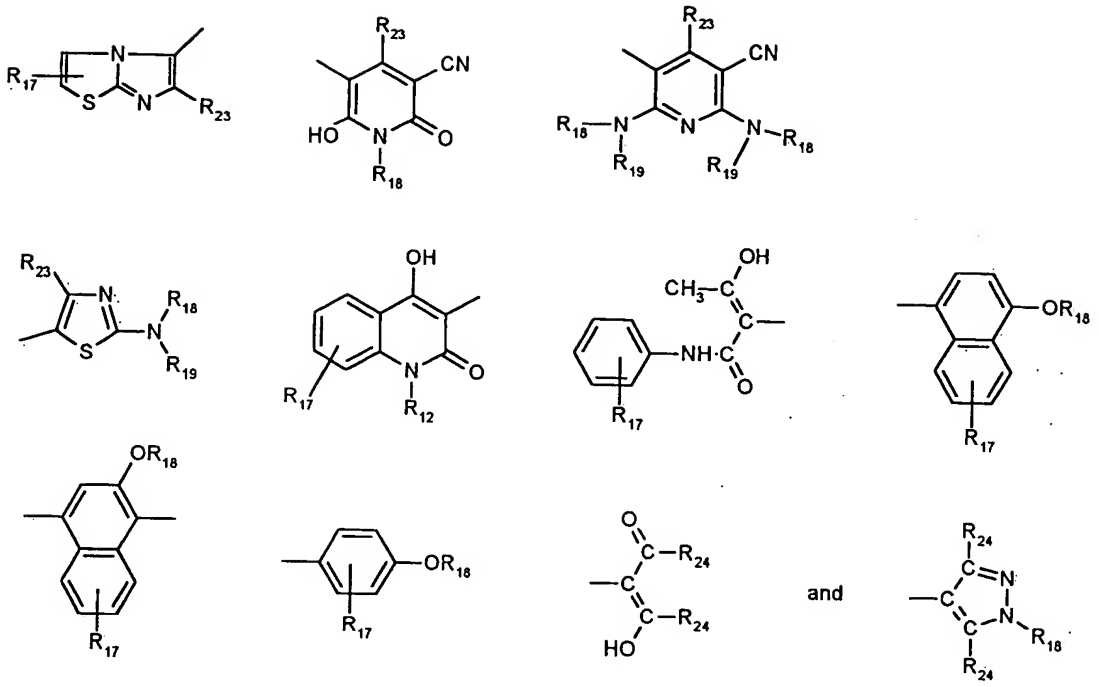


wherein $Sub_8$ is selected from the group consisting of hydrogen, $C_1$-$C_6$ alkyl, heteroaryl and aryl; $Sub_9$ is selected from the group consisting of $C_1$-$C_6$ alkyl, $C_3$-$C_8$ cycloalkyl, $C_3$-$C_8$ alkenyl and aryl; $Sub_{13}$ is selected from the group consisting of hydrogen, one or more groups selected from $C_1$-$C_{10}$ alkyl, $C_1$-$C_6$ alkoxy, $C_3$-$C_8$ cycloalkyl, halogen, , $C_1$-$C_6$ alkoxycarbonyl, formyl, $C_1$-$C_6$ alkanoyl, $C_1$-$C_6$ alkanoyloxy, dicyanovinyl, $C_3$- $C_8$-cycloalkanoyl, thiocyano, trifluroacetyl, cyano, carbamoyl, -CONH $C_1$-$C_6$ alkyl, CONHaryl, CON($C_1$-$C_6$ alkyl)$_2$, $SO_2N$($C_1$-$C_6$ alkyl)$_2$, CONH $C_3$-$C_8$ cycloalkyl, aryl, aroyl, -N($C_1$-$C_6$ alkyl)$SO_2$ $C_1$-$C_6$ alkyl, NHCO $C_1$-$C_6$ alkyl, NHCO $C_3$-$C_8$ cycloalkyl, NHCOaryl, $NHCO_2$ $C_1$-$C_6$ alkyl, NHCONH $C_1$-$C_6$ alkyl, NHCONHaryl, N($C_1$-$C_6$

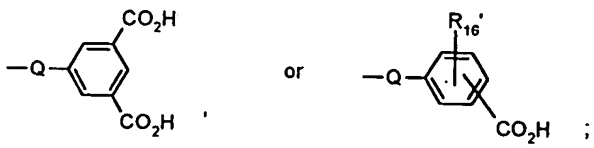
alkyl)aryl, arylazo, heteroaryl, aryloxy, arylthio, $C_3$-$C_8$ cycloalkoxy, heteroarylazo, heteroarylthio, arylsulfonyl, tricyanovinyl, aryloxysulfonyl, $C_1$-$C_6$ alkylsulfonyl, trifluoromethyl, fluorosulfonyl, trifluoromethylsulfonyl, thiocyano, nitro and CH=D, wherein D is the residue of an active methylene compound selected from the group consisting of malononitrile, α-cyanoacetic acid esters, malonic acid esters, α-cyanacetic acid amides, α-$C_1$-$C_6$ alkylsulfonylacetonitriles, α-arylsulfonylacetonitriles, α-$C_1$-$C_6$ alkanoylacetonitriles, α-aroylacetonitriles, α-heteroarylacetonitriles, bis(heteroaryl)methanes, 1,3-indanediones, 2-furanones, benzo-2-furanones, naphtho-2-furanones, 2-indolones, 3-cyano-1,6-dihydro-4-methyl-2,6-dioxy (2H)-pyridines, benzo (b) thieno-3-ylidene propane dinitrile-5,5-dioxides, 1,3-bis (dicyanomethylene) indanes, barbituric acid, 5-pyrazolones, dimedone, 3-oxo-2,3-dihydro-1-benzothiophene-1,1-dioxides and aryl-$C(CH_3)C=C(CN)_2$; $Sub_{14}$ is selected from the group consisting of hydrogen, halogen, cyano, $C_1$-$C_6$ alkylthio, arylthio, $C_1$-$C_6$ alkoxycarbonyl, nitro, heteroarylthio, $C_1$-$C_6$ alkylsulfonyl, arylsulfonyl, and aryloxy; $Sub_{15}$ is selected from the group consisting of hydrogen, $C_1$-$C_6$ alkythio, $C_1$-$C_6$ alkysulfonyl, aryl, arylazo, -CH=D, cyano, $C_1$-$C_6$ alkysulfonyl, aryl, heteroaryl, arylthio, arylsulfonyl, $C_1$-$C_6$ alkoxy, trifluoromethyl and $C_1$-$C_6$ alkoxycarbonyl; $Sub_{16}$ is selected from the group consisting of hydrogen, one or two groups selected from halogen, $C_1$-$C_6$ alkylsulfonyl, nitro, cyano, $C_1$-$C_6$ alkoxycarbonyl, thiocyano and $C_1$-$C_6$ alkylthio; $Sub_{17}$ is selected from the group consisting of hydrogen, one or two groups selected from $C_1$-$C_6$ alkyl, halogen, nitro and $SO_2N$ ($C_1$-$C_6$ alkyl)$_2$; $Sub_{18}$ is selected from the group consisting of hydrogen, aryl, $C_1$-$C_6$ alkylthio, $C_1$-$C_6$ alkylsulfonyl and heteroaryl; $Sub_{19}$ is selected from the group consisting of hydrogen, one or more groups selected from $C_1$-$C_6$ alkyl, cyano, nitro, aryl, heteroaryl, arylazo, -CH=D, $C_1$-$C_6$ alkoxycarbonyl,

$C_1$-$C_6$ alkylsulfonyl, arylsulfonyl, CONH $C_1$-$C_6$ alkyl, $C_1$-$C_6$ alkanoyl, aroyl, halogen, formyl and heteroarylazo; $Sub_{20}$ is selected from the group consisting of hydrogen, one or two groups selected from $C_1$-$C_6$ alkyl, aryl, cyano, nitro, $C_1$-$C_6$ alkoxycarbonyl, $C_1$-$C_6$ alkysulfonyl, arylazo, heteroarylazo, heteroaryl, $SO_2N$ ($C_1$-$C_6$ alkyl)$_2$, formyl, and -CH=D; $Sub_{21}$ is selected from the group consisting of hydrogen, one to three groups selected from $C_1$-$C_6$ alkyl, halogen, cyano, $C_1$-$C_6$ alkylthio, $C_1$-$C_6$ alkylsulfonyl, arylsulfonyl, arylthio, heteroarylthio, $C_1$-$C_6$ alkoxy and aryloxy; $Sub_{22}$ is selected from the group consisting of hydrogen, one to three groups selected from $C_1$-$C_6$ alkyl, halogen, $C_1$-$C_6$ alkylsulfonyl, nitro, cyano, arylthio and heteroarylthio; Z is selected from the group consisting of

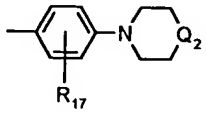


wherein $R_{17}$ is selected from the group consisting of hydrogen, 1-2 groups selected from $C_1$-$C_6$ alkyl, $C_1$-$C_6$ alkoxy, $C_1$-$C_6$ alkylthio, -O $C_2$-$C_6$ alkylene-OH, O $C_2$-$C_6$ alkylene-$C_1$-$C_6$ alkanoyloxy, $C_1$-$C_6$ alkylene-OH, $C_1$-$C_6$ alkylene-$C_1$-$C_6$ alkanoyloxy, halogen, carboxy, $C_1$-$C_6$ alkoxycarbonyl, trifluoromethyl, $NHCOR_{24}$ , $NHCO_2R_{24}$, $NHCON(R_{24})R_{25}$, and $NHSO_2R_{25}$, wherein $R_{24}$ is selected from the group consisting of hydrogen, $C_1$-$C_{10}$ alkyl, $C_3$-$C_8$ cycloalkyl or aryl, $R_{25}$ is selected from the group consisting of $C_1$-$C_{10}$ alkyl, $C_3$-$C_8$ cycloalkyl or aryl wherein each $C_1$-$C_{10}$ alkyl group in $R_{24}$ and $R_{25}$ may be further substituted with one or more groups selected from the group consisting of $C_3$-$C_8$ cycloalkyl, aryl, aryloxy, arylthio, $CO_2H$, $CO_2$ $C_1$-$C_6$ alkyl, cyano, hydroxy, succinimido, $C_1$-$C_6$ alkoxy,



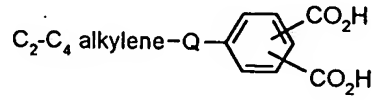
;

wherein $R_5'$, $R_{16}'$ and Q are as defined in claim 63; $R_{18}$ and $R_{19}$ are independently selected from the group consisting of hydrogen, unsubstituted $C_1$-$C_{10}$ alkyl, substituted $C_1$-$C_{10}$ alkyl, $C_3$-$C_8$ cycloalkyl, $C_3$-$C_8$ alkenyl, $C_3$-$C_8$ alkynyl and aryl or $R_{18}$ and $R_{19}$ may be combined with another element to which they are attached to form a radical Z having the formula

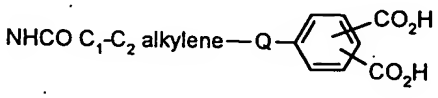


wherein $Q_2$ is selected from the group consisting of a covalent bond, -O-, -S-, $-SO_2-$, -CO-, $-CO_2-$, -N-($C_1$-$C_6$ alkyl)-, -N(CO $C_1$-$C_6$ alkyl)-, -N($SO_2$ $C_1$-$C_6$ alkyl)-, -N(CO aryl)-, or-N($SO_2$ aryl); $R_{20}$, $R_{21}$ and $R_{22}$ are independently selected from the group consisting of or $C_1$-$C_6$ alkyl; $R_{23}$ is selected from the group consisting of hydrogen, $C_1$-$C_6$ alkyl, $C_3$-$C_8$ cycloalkyl, heteroaryl or aryl; with the provision that two carboxy ($-CO_2H$) groups be on Z, such that the two carboxy groups be present on either $R_{17}$ or $R_{18}$, or one carboxy may be present on each of $R_{17}$ and $R_{18}$.

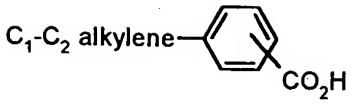
91. The diacidic compounds of claim 90 wherein $R_{18}$ is



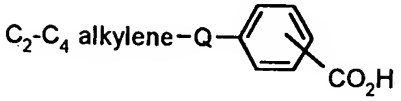

or $R_{17}$ is



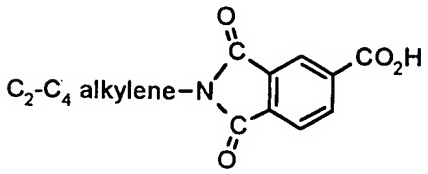

91. The diacidic compounds of claim 89 wherein $R_{18}$ and $R_{19}$ are independently selected from the group consisting of




, $C_1$-$C_{10}$ alkylene—$CO_2H$

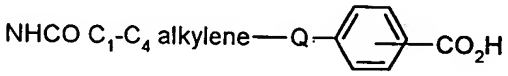



and




; or

$R_{18}$ is selected from the group consisting of the groups listed immediately above and $R_{17}$ is selected from the group consisting of




or NHCO $C_1$-$C_4$ alkylene $CO_2H$; wherein Q is selected from the group consisting of -S-, -O- or $-SO_2-$.

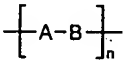
92. A method comprising reacting

a) at least one diacidic monomer, comprising about 1 to 100 mole % of at least one light-absorbing monomer having a light absorption maximum between about 300 nm and about 1200 nm and 99-0 mole % of a non-light absorbing monomer which does not absorb significant light at wavelengths above 300 nm or has a light absorption maximum below 300 nm, with

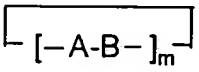
b) an organic compound having the formula

$$X\text{-}B\text{-}X_1$$

wherein B is a divalent organic radical selected from the group consisting of $C_2$-$C_{12}$ alkylene, $C_3$-$C_8$ cycloalkylene, $C_1$-$C_4$ alkylene- $C_3$- $C_8$-cycloalkylene- $C_1$-$C_4$ alkylene, $C_1$-$C_4$ alkylene-arylene- $C_1$-$C_4$ alkylene, $C_2$- $C_4$-alkylene-L-arylene-L- $C_2$-$C_4$ alkylene and $C_2$-$C_4$ alkylene-(L- $C_2$-$C_4$ alkylene)$_{1-4}$, wherein L is a linking group selected from the group consisting of -O-, -S-, $-SO_2-$, -NH-, -N($C_1$-$C_6$ alkyl)-, -N(aryl)-, -N($SO_2$ $C_1$-$C_6$ alkyl)-, -N($SO_2$aryl)-, $-SO_2N(C_1$-$C_6$ alkyl)- and combinations thereof; X and $X_1$ are reactive groups and are independently selected from the group consisting of bromine, iodine and R-$SO_2O$; wherein R is selected from the group consisting of $C_1$-$C_6$ alkyl; $C_1$-$C_6$ alkyl substituted with chlorine, fluorine, $C_1$-$C_6$ alkoxy, aryl, aryloxy, arylthio or $C_3$-$C_8$ cycloalkyl; $C_3$-$C_8$ cycloalkyl or aryl,
wherein said reaction is carried out in a solvent in the presence of a base to form a light absorbing composition comprising a mixture of a polymer having the formula



and a cyclic compound having the general formula



wherein B is as defined above, n is at least 2, m is 1, 2, 3 or 4 and A comprises the residue of said diacidic monomer.

93. The process of claim 92 where said light-absorbing monomers have the formula

wherein H represents an acidic hydrogen atom; Y is a divalent light-absorbing moiety selected from the group consisting of chromophoric classes of azo, disazo, triazo, bis-azo, methine, arylidene, polymethine, azo-methine, azamethine, anthraquinone, anthrapyridone (3H-dibenz[f,ij]isoquinoline-2,7-dione, nitroarylamines anthrapyridine (7H-dibenz[f,ij]isoquinoline-7-one, phthaloylphenothiazine (14H-naphth[2,3-a]phenothiazine-8,13-dione, benzanthrone (7H(de)anthracene-7-one), anthrapyrimidine (7H-benzo[e]perimidine-7-one), anthrapyrazole, anthraisothiazole, triphenodioxazine, thiaxanthene-9-one, fluorindine (5,12-dihydroquinoxaline [2,3-b]phenazine, quinophthalone, phthalocyanine, metal phthalocyanine, naphthalocyanine, metal naphthalocyanine, nickel dithiolenes, squarylium compounds, croconium compounds, coumarin (2H-1-benzopyran-2-one), coumarin imine (2H-1-benzopyran-2-imine), perinone, benzodifuran, phthaloylacridone, phthaloylphenoxazine (14H-naphtho[2,3-a]phenoxazine-8,13-done, phthaloylacridone (13H-naphtho[2,3-c] acridine-5,8,14-trione), anthraquinonethioxanthane (8H-naphtho[2,3-c]thioxanthene-5,8,13-trione, anthrapyridazone, pyrrolo[3,4-c]pyrrole, indigo, thioindigo, quinoline, xanthene, acridine, azine, cyanine, oxazine, 1,4 and 1,5-naphthoquinones, 2,5-diarylaminoterephthalic acids and esters, pyromellitic acid dimide, naphthalene-1,4,5,8-tetracarboxylic acid diimide, 3,4,9,10-perylenetetracarboxylic acid diimide, 3-aryl-2,5-dioxypyrroline, 3-aryl-5-dicyanomethylene-2-oxopyrroline, arylisoindoline, hydroxybenzophenone, benoztriazole, naphthotriazole, diminoisoindoline, naphthopyran (3H-naphtho[2,1-6]pyran-3-one and 3-imine, phthalimides, 2-arylbenzazoles, carbostyryls, 1,2-diarylethenes, 2,5-diarylthiophenes, 2,5-diaryl-1,3,4-oxadiazoles, triazines, 2,5-diarylfurans, 2,5-diaryl-1,3,4-thiadiazoles, thiophenes, 1,3-diphenyl-2-pyrazolines, 2-arylbenzofurans, 2,6-diphenylbenzofurans,

quinolines, quinoxalines, 3,4-diarylfuanones, distyrylarenes, benzanthrones, polyarenes and naphthalimides.

94. The method of claim 93 wherein said acidic functional groups are independently selected from the group consising of $-CO_2H$, -SH, -OH attached to an aromatic ring, $-CONHCO-$, $-SO_2-NH-CO-$, $-SO_2-NH-SO_2-$, 1(H)-1,2,4-triazol-3-yl-, imidazolyl, benzimidazolyl, pyrazolyl, $-SO_2H$ attached to aromatic ring, $-NHSO_2R_5$ and $-SO_2NHR_5$, wherein $R_5$ is selected from the group consisting of $C_1-C_6$ alkyl, $C_3-C_8$ cycloalkyl, aryl and $C_1-C_6$ alkyl substituted with at least one group selected from the group consisting of $C_1-C_6$ alkoxy, aryl, aryloxy, arylthio and $C_3-C_8$ cycloalkyl.

95. The method of claim 92 wherein said non light-absorbing monomers have the formula

$$H-Y_1-H$$

wherein H represents an acidic hydrogen atom; $Y_1$ is a divalent moiety selected from the group consisting of $-O_2C-R_1-CO_2-$ and $-O-R_2-O-$ and $-O_2C-R_3-O-$, wherein $R_1$ is selected from the group consisting of $C_2-C_{12}$ alkylene, 1-4-cyclohexylene, arylene, arylene-O-arylene, arylene-$SO_2$-arylene, arylene-S-arylene, and $C_1-C_4$ alkylene-O- $C_1-C_4$ alkylene; wherein $R_2$ is selected from the group consisting of arylene, arylene-O-arylene, arylene-S-arylene, arylene-$SO_2$-arylene, phenylene-phenylene, and phenylene-$C(R_4)_2$-phenylene; wherein $R_4$ is selected from the group consisting of hydrogen and $C_1-C_4$ alkyl; wherein $R_3$ is selected from arylene.

96. A light absorbing composition comprising a mixture of a polymer having the formula

$$\left[A_1-B\right]_n$$

and a cyclic compound having the general formula

$$\left[-A\text{-}B-\right]_m$$

wherein $A_1$ comprises the residue of at least one diacidic monomer having a light absorption maximum between about 300 nm and about 1200 nm, and wherein B is a divalent organic radical selected from the group consisting of $C_2$-$C_{12}$ alkylene, $C_3$-$C_8$ cycloalkylene, $C_1$-$C_4$ alkylene- $C_3$-$C_8$-cycloalkylene- $C_1$-$C_4$ alkylene, $C_1$-$C_4$ alkylene-arylene-$C_1$-$C_4$ alkylene, and $C_2$- $C_4$-alkylene-L-arylene-L- $C_2$-$C_4$ alkylene and $C_2$-$C_4$ alkylene-(L- $C_2$-$C_4$ alkylene)$_{1-4}$, wherein L is a linking group selected from-O-, -S-, $-SO_2-$, -NH-, $-N(C_1$-$C_6$ alkyl)-, -N(aryl)-, $-N(SO_2$ $C_1$-$C_6$ alkyl)-, $-N(SO_2$aryl)-, $-SO_2N(C_1$-$C_6$ alkyl)- and combinations thereof; wherein n is at least 2 and m is 1, 2, 3 or 4.

97. A composition comprising a thermoplastic polymer blended with at least one light absorbing linear polymeric composition of claim 96.

98. The composition of claim 97 wherein said thermoplastic polymer is selected from the group consisting of polyesters, polyolefins, polyamides, polyimides, polyvinyl chloride, polyurethanes, polycarbonates, cellulose esters, polyacrylates, polyvinylesters, polyester-amides, polystyrene, polyacrylonitrile-butadiene- styrene, polystyrene-acrylonitrile and mixtures and blends thereof.

99. The composition of claim 96 wherein $A_1$ comprises the residue of at least one diacidic monomer having the structure

H-Y-H

wherein H represents an acidic hydrogen atom and Y is a divalent light-absorbing moiety selected from the chromophoric classes consisting of azo, disazo, triazo, bis-azo, methine, arylidene, polymethine, azo-methine,

azamethine, anthraquinone, anthrapyridone (3H-dibenz[f,ij] isoquinoline-2,7-dione, nitroarylamines anthrapyridine (7H-dibenz[f,ij]isoquinoline-7-one, phthaloylphenothiazine (14H-naphth[2,3-a]phenothiazine-8,13-dione, benzanthrone (7H(de)anthracene-7-one), anthrapyrimidine (7H-benzo[e]perimidine-7-one), anthrapyrazole, anthraisothiazole, triphenodioxazine, thiaxanthene-9-one, fluorindine (5,12-dihydroquinoxaline [2,3-b]phenazine, quinophthalone, phthalocyanine, metal phthalocyanine, naphthalocyanine, metal naphthalocyanine, nickel dithiolenes, squarylium compounds, croconium compounds, coumarin (2H-1-benzopyran-2-one), coumarin imine (2H-1-benzopyran-2-imine), perinone, benzodifuran, phthaloylacridone, phthaloylphenoxazine (14H-naphtho[2,3-a]phenoxazine-8,13-done, phthaloylacridone (13H-naphtho[2,3-c] acridine-5,8,14-trione), anthraquinonethioxanthane (8H-naphtho[2,3-c]thioxanthene-5,8,13-trione, anthrapyridazone, pyrrolo[3,4-c]pyrrole, indigo, thioindigo, quinoline, xanthene, acridine, azine, cyanines, oxazine, 1,4 and 1,5-naphthoquinones, 2,5-diarylaminoterephthalic acids and esters, pyromellitic acid dimide, naphthalene-1,4,5,8-tetracarboxylic acid diimide, 3,4,9,10-perylenetetracarboxylic acid diimide, 3-aryl-2,5-dioxypyrroline, 3-aryl-5-dicyanomethylene-2-oxopyrroline, arylisoindoline, hydroxybenzophenone, benoztriazole, naphthotriazole, diminoisoindoline, naphthopyran (3H-naphtho[2,1-6]pyran-3-one and 3-imine, phthalimides, 2-arylbenzazoles, carbostyryls, 1,2-diarylethenes, 2,5-diarylthiophenes, 2,5-diaryl-1,3,4-oxadiazoles, triazines, 2,5-diarylfurans, 2,5-diaryl-1,3,4-thiadiazoles, thiophenes, 1,3-diphenyl-2-pyrazolines, 2-arylbenzofurans, 2,6-diphenylbenzofurans, quinolines, quinoxalines, 3,4-diarylfuanones, distyrylarenes, benzanthrones, polyarenes and naphthalimides.

100. The light absorbing composition of claim 99 wherein $A_1$ further comprises less than about 50% by weight of the total composition of a residue of at least one non-light absorbing monomer having the formula

$$H-Y_1-H$$

wherein $Y_1$ is a divalent moiety, selected from the group consisting of $-O_2C-R_1-CO_2-$ and $-O-R_2-O-$ and $-O_2C-R_3-O-$, wherein $R_1$ is selected from the group consisting of $C_2-C_{12}$ alkylene, 1-4-cyclohexylene, arylene, arylene-O-arylene, arylene-$SO_2$-arylene, arylene-S-arylene, and $C_1-C_4$ alkylene-O- $C_1-C_4$ alkylene; wherein $R_2$ is selected from the group consisting of arylene, arylene-O-arylene, arylene-S-arylene, arylene-$SO_2$-arylene, phenylene-phenylene, and phenylene-$C(R_4)_2$-phenylene; wherein $R_4$ is selected from the group consisting of hydrogen and $C_1-C_4$ alkyl; wherein $R_3$ is arylene; wherein B is is a divalent organic radical selected from the group consisting of $C_2-C_{12}$ alkylene, $C_3-C_8$ cycloalkylene, $C_1-C_4$ alkylene-$C_3-C_8$-cycloalkylene-$C_1-C_4$ alkylene, $C_1-C_4$ alkylene-arylene-$C_1-C_4$ alkylene, and $C_2-C_4$-alkylene-L-arylene-L-$C_2-C_4$ alkylene and $C_2-C_4$ alkylene-(L-$C_2-C_4$ alkylene)$_{1-4}$, wherein L is a linking group selected from-O-, -S-, $-SO_2-$, -NH-, $-N(C_1-C_6$ alkyl)-, -N(aryl)-, -N($SO_2$ $C_1-C_6$ alkyl)-, $-N(SO_2$aryl)-, $-SO_2N(C_1-C_6$ alkyl)- and combinations thereof.

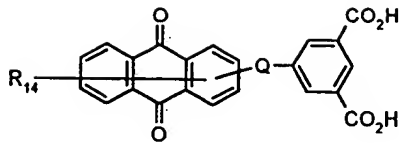
101. The light absorbing composition of Claim 100 wherein $A_1$ comprises the residue of at least one diacidic monomer having at least one acidic group other than carboxy and having a light absorption maximum between about 300 nm and about 1200 nm and wherein B is a divalent organic radical selected from $C_2-C_{12}$ alkylene, $C_3-C_8$ cycloalkylene, $C_1-C_4$ alkylene- $C_3-C_8$-cycloalkylene- $C_1-C_4$ alkylene, $C_1-C_4$ alkylene-arylene- $C_1-C_4$ alkylene, and $C_2-C_4$-alkylene-L-arylene-L- $C_2-C_4$ alkylene and $C_2-C_4$ alkylene-(L-$C_2-C_4$ alkylene)$_{1-4}$, wherein L is a linking group selected from-O-, -S-, $-SO_2-$, -NH-, $-N(C_1-C_6$ alkyl)-, -N(aryl-, -

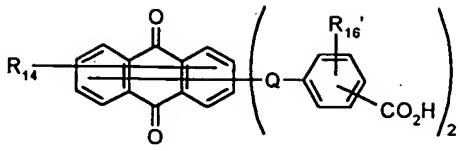
$N(SO_2\ C_1\text{-}C_6$ alkyl)-, -($SO_2$aryl)-, -$SO_2N(C_1\text{-}C_6$ alkyl)- and combinations thereof; wherein n is at least 2.

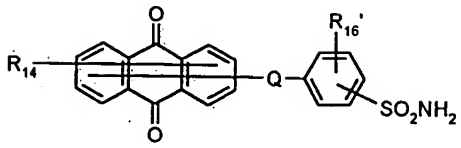
102. The composition of claim 99 wherein said light absorbing monomer comprises two acidic groups independently selected from the group consisting of -$CO_2H$, SH, hydroxy attached to an aromatic ring, -CONHCO- (imide), -$SO_2NHCO$-, -$SO_2NHSO_2$-, 1(H)-1,2,4-triazolyl-3-yl-, imidazolyl, benzimidazolyl, pyrazolyl, -$SO_2H$ attached to an aromatic ring, -$NHSO_2R_5$ and-$SO_2NHR_5$, wherein $R_5$ is selected from the group consisting of $C_1\text{-}C_6$ alkyl; $C_1\text{-}C_6$ alkyl substituted with at least one group selected from $C_1\text{-}C_6$ alkoxy, aryl, aryloxy, arylthio and $C_3\text{-}C_8$ cycloalkyl; $C_3\text{-}C_8$ cycloalkyl; aryl.

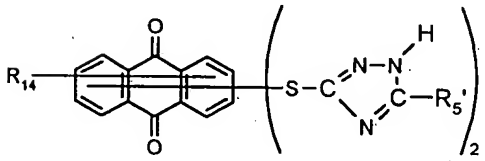
103. The composition of claim 100 wherein said light absorbing monomer comprises two carboxy groups as acidic functional groups.

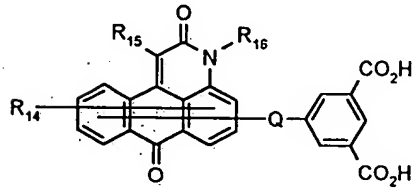
104. The composition of claim 100 wherein the light absorbing portion of A comprises the residue of at least one diacidic light absorbing monomer selected from the group consisting of the anthraquinone and anthrapyridone colorants having the structures:

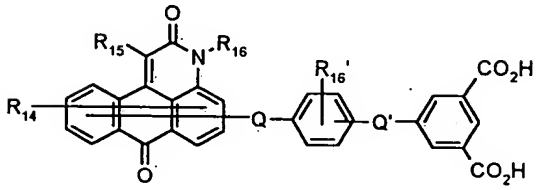


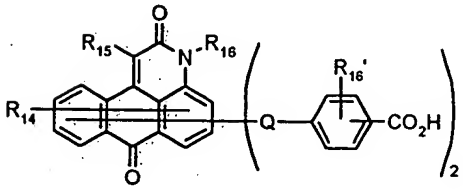


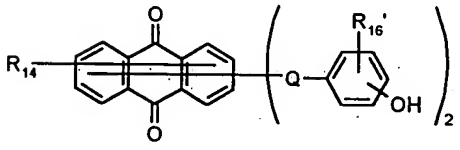


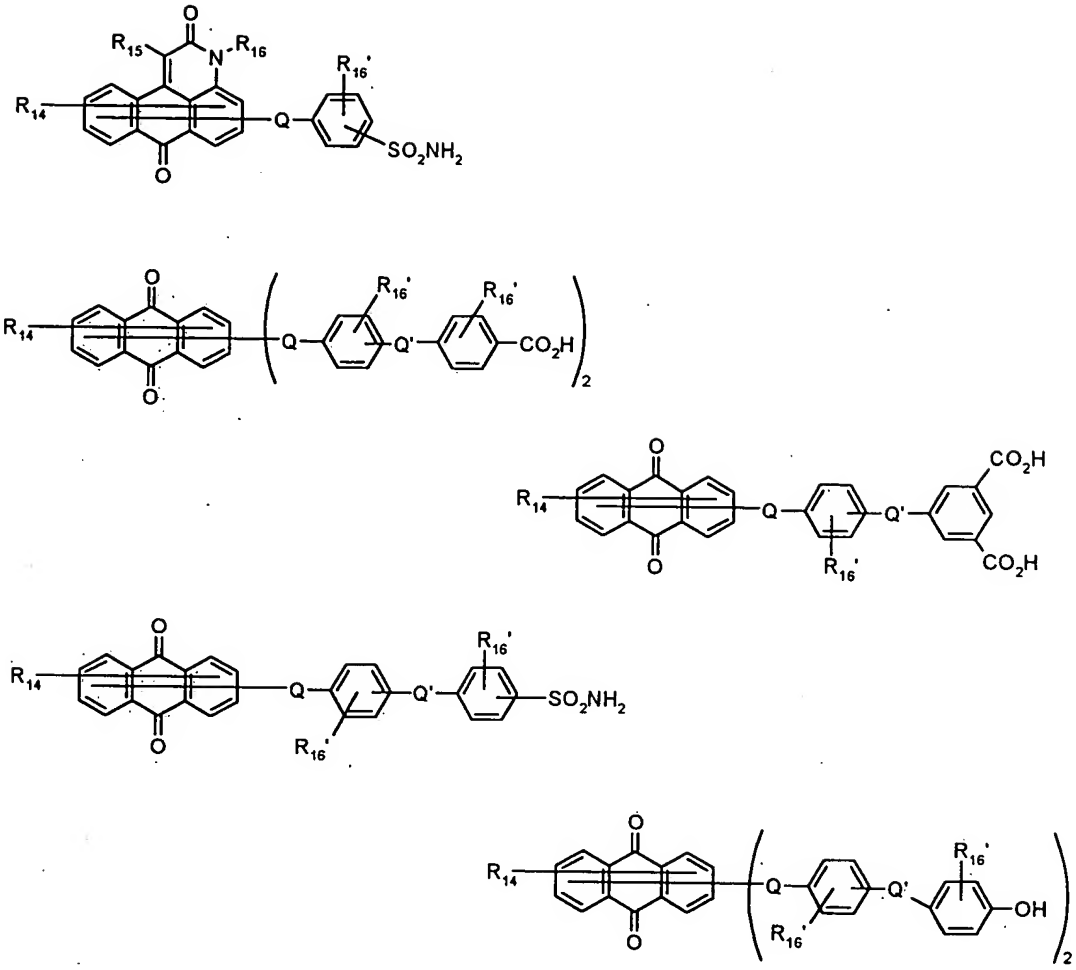




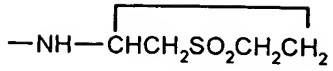








wherein $R_{14}$ is selected from the group consisting of hydrogen and 1-4 groups selected from amino, $C_1$-$C_{10}$ alkylamino, $C_3$-$C_8$ alkenylamino, $C_3$-$C_8$ alkynylamino, $C_3$-$C_8$ cycloalkylamino, arylamino, halogen, $C_1$-$C_6$ alkoxy, $C_1$-$C_6$ alkylthio, aryl, aroyl, $C_1$-$C_6$ alkanoyl, $C_1$-$C_6$ alkanoyloxy, NHCO $C_1$-$C_6$ alkyl, NHCOaryl, $NHCO_2$ $C_1$-$C_6$ alkyl, $NHSO_2$ $C_1$-$C_6$ alkyl, $NHSO_2$ aryl, $C_1$-$C_6$ alkoxycarbonyl, aryloxy, arylthio, heteroarylthio, cyano, nitro, trifluoromethyl, thiocyano, $SO_2$ $C_1$-$C_6$ alkyl, $SO_2$ aryl, $-SO_2NH$ $C_1$-$C_6$ alkyl, $-SO_2N(C_1$-$C_6$ alkyl)$_2$, $-SO_2N(C_1$-$C_6$ alkyl) aryl, CONH $C_1$-$C_6$ alkyl, CON($C_1$-$C_6$ alkyl)$_2$, CON($C_1$-$C_6$ alkyl) aryl, $C_1$-$C_6$ alkyl, furfurylamino, tetrahydrofurfurylamino, 4-(hydroxymethyl) cyclohexanemethylamino,



or hydroxy; Q and Q' are independently selected from the group consisting of-O-, $-N(COR_{10})-$, $-N(SO_2R_{10})-$, $-N(R_{10})-$, -S-, $-SO_2-$, $-CO_2-$, $-CON(R_{10})-$, $SO_2N(R_{10})-$, wherein $R_{10}$ is selected from the group consisting of hydrogen, aryl, $C_3-C_8$ cycloalkyl, or $C_1-C_{10}$ alkyl; $R_{15}$ is selected from the group consisting of hydrogen, cyano, $C_1-C_6$ alkylamino, $C_1-C_6$ alkoxy, halogen, arylthio, aryl, heteroaryl, heteroarylthio, $C_1-C_6$ alkoxycarbonyl, aroyl or arylsulfonyl; $R_{16}$ is selected from the group consisting of hydrogen, $C_1-C_6$ alkyl, $C_3-C_8$ cycloalkyl and aryl; $R_{16}'$ is selected from the group consisting of hydrogen, $C_1-C_6$ alkyl, halogen and $C_1-C_6$ alkoxy; wherein each $C_1-C_6$ alkyl group and $C_1-C_6$ alkyl group which is a portion of another group may contain at least one substituent selected from the group consisting of hydroxy, cyano, chlorine, fluorine, $C_1-C_6$ alkoxy, $C_3-C_8$ cycloalkoxy, $C_1-C_6$ alkylcyclohexyl, hydroxmethyl cyclohexyl, aryl and heteroaryl; with the provision that two acidic groups containing one acidic proton each or one acidic group containing two acidic hydrogens be present in the diacidic compounds.

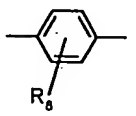
105. The composition of claim 100 wherein the light absorbing portion of A comprises the residue of at least one light absorbing monomer selected from the group consisting of azo, disazo, bis-azo and azomethine and having respectively the structures:

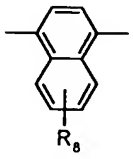
$$R_6-N=N-Z,\ R_6-N=N-R_7-N=N-Z,\ R_6-N=N-Y_1-N=N-R_6 \text{ and } D=HC-N=N-Z$$

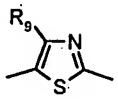
wherein $R_6$ is the residue of an aromatic or heteroaromatic amine which has been dizaotized and coupled with a coupling component H-Z and is derived from an amine

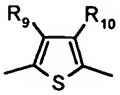
selected from the group consisting of aromatic and heteroaromatic amine classes selected from the group consisting of aniline, 1-aminonaphthalene, 1-aminoanthraquinone, 4-aminoazobenzene, 2-aminothiazole, 2-aminobenzothiazole, 3-amino-2,1-benzisothiazole, 2-aminothieno[2,3-d]thiazole, 5-aminoisothiazole, 5-aminopyrazole, 4-aminopyrazoloisothiazole, 2-amino-1,3,4-thiadiazole, 5-amino-1,2,4-thiadiazole, 5-amino-1,2,3-triazole, 2-amino-1,3,4-triazole, 2(5) aminoimidazole, 3-aminopyridine, 2(3) aminothiophene, 2(3) aminobenzo[b]thiophene, 2-aminothieno[3,2-b]thiophene, 3-aminothieno[2,3-c]isothiazole, 3-amino-7-benz-2,1-isothiazole, 3-aminobenzothienoisothiazole, 3-aminoisothiazole[3,4-d]pyrimidine, 5-amino-1,2,3-triazole, 3(4) aminophthalimide and 5(6) amino-1,2-benzisothiazolon-1,1-dioxide with said aromatic and heteroaromatic ring systems being unsubstituted or substituted with one or more groups selected from $C_1$-$C_{10}$ alkyl, $C_1$-$C_6$ alkoxy, $C_3$-$C_8$ cycloalkyl, carboxy, halogen, $C_1$-$C_6$ alkoxycarbonyl, formyl, $C_1$-$C_6$ alkanoyl, $C_1$-$C_6$ alkanoyloxy, dicyanovinyl, $C_3$-$C_8$-cycloalkanoyl, thiocyano, trifluroacetyl, cyano, carbamoyl, -CONH-$C_1$-$C_6$ alkyl, CONHaryl, CON($C_1$-$C_6$ alkyl)$_2$, sulfamoyl, $SO_2$NH $C_1$-$C_6$ alkyl, $SO_2$N($C_1$-$C_6$ alkyl)$_2$, $SO_2$NHaryl, $SO_2$NH $C_3$-$C_8$ cycloalkyl, CONH $C_3$-$C_8$ cycloalkyl, aryl, aroyl, -NHS$O_2$ $C_1$-$C_6$ alkyl, -N($C_1$-$C_6$ alkyl)S$O_2$ $C_1$-$C_6$ alkyl, -NHS$O_2$ aryl, NHCO $C_1$-$C_6$ alkyl, NHCO $C_3$-$C_8$ cycloalkyl, NHCOaryl, NHC$O_2$ $C_1$-$C_6$ alkyl, NHCONH $C_1$-$C_6$ alkyl, NHCONHaryl, N($C_1$-$C_6$ alkyl)aryl, arylazo, heteroaryl, aryloxy, arylthio, $C_3$-$C_8$ cycloalkoxy, heteroarylazo, heteroarylthio, arylsulfonyl, tricyanovinyl, aryloxysulfonyl, $C_1$-$C_6$ alkylsulfonyl, trifluoromethyl, fluorosulfonyl, trifluoromethylsulfonyl, thiocyano, hydroxy, nitro or CH=D, wherein D is the residue of an active methylene compound selected from the group consisting of malononitrile, α-cyanoacetic acid esters, malonic acid esters, α-cyanacetic acid amides, α-$C_1$-$C_6$

alkylsulfonylacetonitriles, α-arylsulfonylacetonitriles, α-$C_1$-$C_6$ alkanoylacetonitriles, α-aroylacetonitriles, α-heteroarylacetonitriles, bis(heteroaryl)methanes, 1,3-indanediones, 2-furanones, benzo-2-furanones, naphtho-2-furanones, 2-indolones, 3-cyano-1,6-dihydro-4-methyl-2,6-dioxy (2H)-pyridines, benzo (b) thieno-3-ylidene propane dinitrile-5,5-dioxides, 1,3-bis(dicyanomethylene) indanes, barbituric acid, 5-pyrazolones, dimedone, 3-oxo-2,3-dihydro-1-benzothiophene-1,1-dioxides or aryl-$C(CH_3)C=C(CN)_2$; wherein $R_7$ is a divalent aromatic or heteroaromatic radical selected from the group consisting of 1,4-phenylene, naphthalene-1,4-diyl, thiazol-2,5-diyl and thiophene-2,5-diyl:



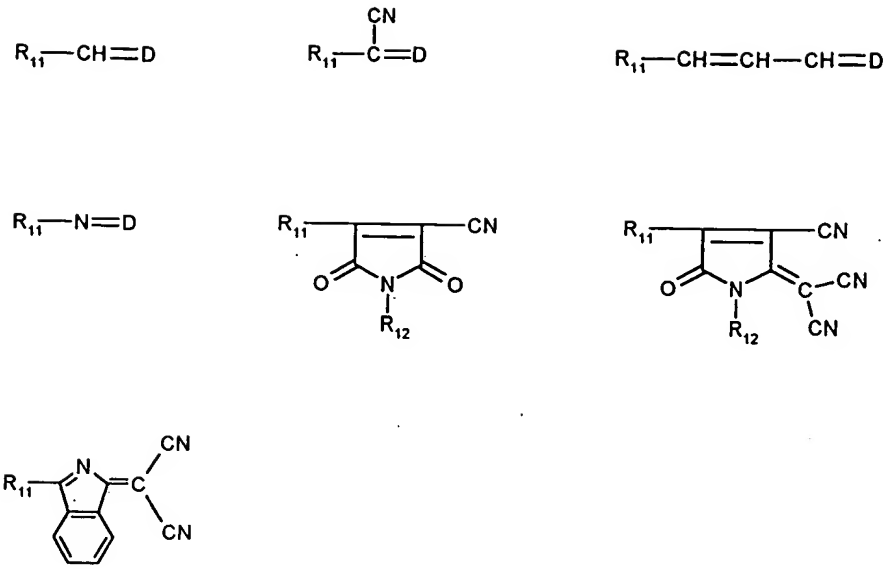




wherein $R_8$ is selected from the group consisting of hydrogen or 1-2 groups selected from $C_1$-$C_6$ alkyl, $C_1$-$C_6$ alkoxy, cyano, halogen, -NHCO $C_1$-$C_6$ alkyl, -$NHCO_2$ $C_1$-$C_6$ alkyl, -NHCO aryl, -NHCONH aryl or NHCONH $C_1$-$C_6$ alkyl; $R_9$ is selected from the group consisting of hydrogen, $C_1$-$C_6$ alkyl, halogen, aryl, heteroaryl; $R_{10}$ is selected from the group consisting of hydrogen, $C_1$-$C_6$ alkoxycarbonyl, cyano, carbamoyl, aryl, arylsulfonyl, aroyl, -CONH $C_1$-$C_6$ alkyl, or $C_1$-$C_6$ alkylsulfonyl; wherein Z is the residue of a coupling compound selected from the group consisting of electron rich compound classes of anilines, 1-aminonaphthalenes, 1,2-dihydroquinolines, 1,2,3,4-tetrahydroquinolines, benzomorpholines (3,4-dihydro-2H-1,4-benzoxazine),

pyrazolones, pyrazoles, 3-cyano-6-hydroxy-2-pyridones, 2,3-dihydroindoles, indoles, 4-hydroxycoumarins, 4-hydroxy-2-quinolones, imidazo[2,1-b]thiazoles, julolidines (2,3,6,7-tetrahydro-1H,5H-benzo[ij]quinolizines), 1-oxajulolidines, 1,2,5,6-tetrahydro-4H-pyrrolo[3,2,1-ij]quinolines, 2,6-diamino-3 cyanopyridines, 2-aminothiazoles, 2-aminothiophenes, 5,5-dimethyl-1,3-cyclohexanedione (dimedone), phenols, naphthols, 2,4-pentanediones or acetoacetarylides; wherein $Y_1$ is the residue of a bis coupling component selected from the group consisting of anilines, 1,2-dihydroquinolines, 1,2,3,4-tetrahydroquinolines, benzomorpholines (3,4-dihydro- 2H-1,4-benzoxazines), 3-cyano-6-hydroxy-2-pyridones, 2,6-diaminopyridines, 2,3-dihydroindoles, naphthylamines, 2-aminothiazoles, or a combination of these; with the provision that two acidic functional groups containing one acidic hydrogen each or a functional group containing two acidic hydrogen are present in the diacidic light absorbing monomer.

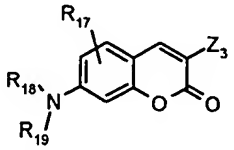
106. The composition of claim 100 wherein the light absorbing portion of A comprises the residue of at least one light absorbing monomer selected from the group consisting of methine, arylidene, polmethine, azamethine, 3-aryl-2,5-dioxypyrroline, 3-aryl-5-dicyanomethylene-2-oxypyrroline and arylisoindoline and having respectively the structures:

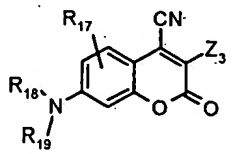


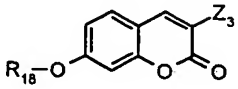
wherein $R_{11}$ is the residue of an electron rich aromatic compound selected from the group consisting of an aniline, 1-naphthylamine, 1,2-dihydroquinoline, 1,2,3,4-tetrahydroquinoline, 1,3,3-trimethyl- 2-methyleneindole, 1,3-dihydro-2-methylene- 1,1,3-trimethyl-2H-benz[e]indole, imidazo [2,1-b] thiazole, benzomorpholine (3,4-dihydro-2H-1,4,benzoxazine), 2,3-dihydroindole, indole, 2-aminothiazole, julolidine (2,3,6,7-tetrahydro-1H, 5H- benz [ij] quinolizine, 1-oxajulolidine, 4H-pyrrolo [3,2,1-ij]-quinoline, phenol, naphthol, thiophenol, pyrrole, pyrazole, furan, thiophene, carbazole, phenothiazine or phenoxazine compound; $R_{12}$ is selected from the group consisting of hydrogen, $C_1$-$C_{10}$ alkyl, $C_3$-$C_8$ alkenyl, $C_3$-$C_8$-alkynyl, $C_3$-$C_8$ cycloalkyl, aryl, $+CH_2CH_2O+_{1-3}$ $R_{13}$ and $C_1$-$C_4$ alkylene- $C_3$-$C_8$ cycloalkylene, wherein the $C_1$-$C_6$ alkyl groups may be substituted by at least one group selected from the group consisting of carboxy, $C_1$-$C_6$ carbalkoxy, $C_1$-$C_6$ alkanoyloxy, cyano, hydroxy, chlorine, fluorine, $C_1$-$C_6$ alkoxy, $C_3$-$C_8$ cycloalkyl or aryl; $R_{13}$ is selected from the group consisting of hydrogen, $C_1$-$C_6$ alkoxy or $C_1$-$C_6$ alkanoyloxy; wherein D is the residue of an active

methylene compound selected from the group consisting of malononitrile, α-cyanoacetic acid esters, malonic acid esters, α-cyanacetic acid amides, α-$C_1$-$C_6$ alkylsulfonylacetonitriles, α-arylsulfonylacetonitriles, α-$C_1$-$C_6$ alkanoylacetonitriles, α-aroylacetonitriles, α-heteroarylacetonitriles, bis(heteroaryl)methanes, 1,3-indanediones, 2-furanones, benzo-2-furanones, naphtho-2-furanones, 2-indolones, 3-cyano-1,6-dihydro-4-methyl-2,6-dioxy (2H)-pyridines, benzo (b) thieno-3-ylidene propane dinitrile-5,5-dioxides, 1,3-bis(dicyanomethylene) indanes, barbituric acid, 5-pyrazolones, dimedone, 3-oxo-2,3-dihydro-1-benzothiophene-1,1-dioxides or aryl-$C(CH_3)C=C(CN)_2$, with the proviso that two acidic functional groups containing one acidic hydrogen each, or a functional group containing two acidic hydrogens are present.

107. The composition of claim 100 wherein the light absorbing portion of $A_2$ comprises a residue of at least one diacidic coumarin compounds selected from the group consisting of the structures

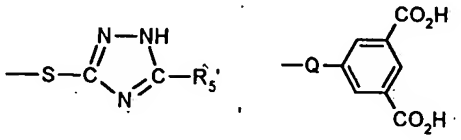


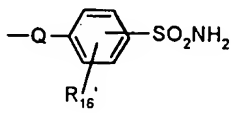



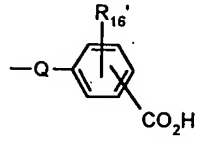




wherein $Z_3$ is selected from the group consisting of cyano, $C_1$-$C_6$ alkoxycarbonyl, $C_1$-$C_6$ alkylsulfonyl, arylsulfonyl, aryl, heteroaryl, formyl, aroyl, $C_1$-$C_6$ alkanoyl or-CH=D, wherein $R_{17}$ is selected from the group consisting of hydrogen, 1-2 groups selected from $C_1$-$C_6$ alkyl, $C_1$-$C_6$ alkoxy, $C_1$-$C_6$ alkylthio, -O $C_2$-$C_6$ alkylene-OH, O $C_2$-$C_6$ alkylene- $C_1$-$C_6$ alkanoyloxy, $C_1$-$C_6$ alkylene-OH, $C_1$-$C_6$ alkylene- $C_1$-$C_6$ alkanoyloxy, halogen, carboxy, $C_1$-$C_6$ alkoxycarbonyl, trifluoromethyl,$NHCOR_{24}$ , $NHCO_2R_{24}$,

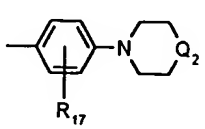
$NHCON(R_{24})R_{25}$, and $NHSO_2R_{25}$, wherein $R_{24}$ is selected from the group consisting of hydrogen, $C_1$-$C_{10}$ alkyl, $C_3$-$C_8$ cycloalkyl or aryl, $R_{25}$ is selected from the group consisting of $C_1$-$C_{10}$ alkyl, $C_3$-$C_8$ cycloalkyl or aryl wherein each $C_1$-$C_{10}$ alkyl group in $R_{24}$ and $R_{25}$ may be further substituted with one or more groups selected from the group consisting of $C_3$-$C_8$ cycloalkyl, aryl, aryloxy, arylthio, $CO_2H$, $CO_2$ $C_1$-$C_6$ alkyl, cyano, hydroxy, succinimido, $C_1$-$C_6$ alkoxy,





or  ;

wherein $R_5'$ is selected from the group consisting of hydrogen, $C_1$-$C_6$ alkyl or aryl; $R_{16}'$ is selected from hydrogen or one or two groups selected from $C_1$-$C_6$ alkyl, halogen, and $C_1$-$C_6$ alkoxy; Q is selected from the group consisting of -O-, $-N(COR_{10})-$, $-N(R_{10})-$, -S-, $-SO_2-$, $-CO_2-$, $CON(R_{10})$, $SO_2(R_{10})-$, wherein $R_{10}$ is selected from the group consisting of hydrogen, aryl, $C_3$-$C_8$ cycloalkyl or $C_1$-$C_{10}$ alkyl; $R_{18}$ and $R_{19}$ are independently selected from the group consisting of hydrogen, unsubstituted $C_1$-$C_{10}$ alkyl, substituted $C_1$-$C_{10}$ alkyl, $C_3$-$C_8$ cycloalkyl, $C_3$-$C_8$ alkenyl, $C_3$-$C_8$ alkynyl and aryl or $R_{18}$ and $R_{19}$ may be combined with another element to which they are attached to form a radical Z having the formula



wherein $Q_2$ is selected from the group consisting of a covalent bond, -O-, -S-, $-SO_2-$, -CO-, $-CO_2-$, $-N-(C_1-C_6$ alkyl)-, $-N(CO\ C_1-C_6$ alkyl)-, $-N(SO_2\ C_1-C_6$ alkyl)-, -N(CO aryl)-, or $-N(SO_2$ aryl); $R_{20}$, $R_{21}$ and $R_{22}$ are independently selected from the group consisting of or $C_1-C_6$ alkyl; $R_{23}$ is selected from the group consisting of hydrogen, $C_1-C_6$ alkyl, $C_3-C_8$ cycloalkyl, heteroaryl or aryl; wherein D is the residue of an active methylene compound selected from the group consisting of malononitrile, α-cyanoacetic acid esters, malonic acid esters, α-cyanacetic acid amides, α-$C_1-C_6$ alkylsulfonylacetonitriles, α-arylsulfonylacetonitriles, α-$C_1-C_6$ alkanoylacetonitriles, α-aroylacetonitriles, α-heteroarylacetonitriles, bis(heteroaryl)methanes, 1,3-indanediones, 2-furanones, benzo-2-furanones, naphtho-2-furanones, 2-indolones, 3-cyano-1,6-dihydro-4-methyl-2,6-dioxy (2H)-pyridines, benzo (b) thieno-3-ylidene propane dinitrile-5,5-dioxides, 1,3-bis(dicyanomethylene) indanes, barbituric acid, 5-pyrazolones, dimedone, 3-oxo-2,3-dihydro-1-benzothiophene-1,1-dioxides or aryl-$C(CH_3)C=C(CN)_2$, with the proviso that two acidic functional groups containing one acidic hydrogen each, or a functional group containing two acidic hydrogens are present.